10/516,808

# EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|---|---|---|---|---|---|---|
| L1 | 726 | (514/252.13,514/255.01,514/255.05,544/358,544/360,544/367,544/372,544/374,544/386).CCLS. | US-PGPUB; USPAT | OR | OFF | 2007/08/14 09:38 |
| L2 | 102 | l1 and piperazinyl and acyl and piperidine | US-PGPUB; USPAT | OR | ON | 2007/08/14 09:39 |
| L3 | 98 | l1 and piperazin! and acyl and piperidine | US-PGPUB; USPAT | OR | ON | 2007/08/14 09:39 |
| L4 | 46 | l3 and ketone | US-PGPUB; USPAT | OR | ON | 2007/08/14 09:40 |
| L5 | 11 | l4 and thiazol | US-PGPUB; USPAT | OR | ON | 2007/08/14 09:40 |

10/516,808

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|---|---|---|---|
| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | MAY 01 | New CAS web site launched |
| NEWS | 3 | MAY 08 | CA/CAplus Indian patent publication number format defined |
| NEWS | 4 | MAY 14 | RDISCLOSURE on STN Easy enhanced with new search and display fields |
| NEWS | 5 | MAY 21 | BIOSIS reloaded and enhanced with archival data |
| NEWS | 6 | MAY 21 | TOXCENTER enhanced with BIOSIS reload |
| NEWS | 7 | MAY 21 | CA/CAplus enhanced with additional kind codes for German patents |
| NEWS | 8 | MAY 22 | CA/CAplus enhanced with IPC reclassification in Japanese patents |
| NEWS | 9 | JUN 27 | CA/CAplus enhanced with pre-1967 CAS Registry Numbers |
| NEWS | 10 | JUN 29 | STN Viewer now available |
| NEWS | 11 | JUN 29 | STN Express, Version 8.2, now available |
| NEWS | 12 | JUL 02 | LEMBASE coverage updated |
| NEWS | 13 | JUL 02 | LMEDLINE coverage updated |
| NEWS | 14 | JUL 02 | SCISEARCH enhanced with complete author names |
| NEWS | 15 | JUL 02 | CHEMCATS accession numbers revised |
| NEWS | 16 | JUL 02 | CA/CAplus enhanced with utility model patents from China |
| NEWS | 17 | JUL 16 | CAplus enhanced with French and German abstracts |
| NEWS | 18 | JUL 18 | CA/CAplus patent coverage enhanced |
| NEWS | 19 | JUL 26 | USPATFULL/USPAT2 enhanced with IPC reclassification |
| NEWS | 20 | JUL 30 | USGENE now available on STN |
| NEWS | 21 | AUG 06 | CAS REGISTRY enhanced with new experimental property tags |
| NEWS | 22 | AUG 06 | BEILSTEIN updated with new compounds |
| NEWS | 23 | AUG 06 | FSTA enhanced with new thesaurus edition |
| NEWS | 24 | AUG 13 | CA/CAplus enhanced with additional kind codes for granted patents |

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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|---|---|---|
| FULL ESTIMATED COST | 0.21 | 0.21 |

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http://www.cas.org/support/stngen/stndoc/properties.html

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L1 STRUCTURE UPLOADED

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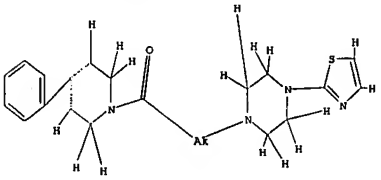


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Structure attributes must be viewed using STN Express query preparation.

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FULL SCREEN SEARCH COMPLETED - 202 TO ITERATE

100.0% PROCESSED 202 ITERATIONS 15 ANSWERS
SEARCH TIME: 00.00.01

L2 15 SEA SSS FUL L1

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| FULL ESTIMATED COST | 172.55 | 172.76 |

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=> s l2 full
L3 1 L2

=> d ibib abs hitstr tot

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991507 CAPLUS
DOCUMENT NUMBER: 140:42206
TITLE: Preparation of piperazinylacylpiperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Bono, Francoise; Bosch, Michael; Dos Santos, Victor; Herbert, Jean Marc; Nisato, Dino; Tonnerre, Bernard; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 56 pp.

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10/513699

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003104226 | A1 | 20031218 | WO 2003-FR1686 | 20030605 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2003255645 | A1 | 20031222 | AU 2003-255645 | 20030605 |
| EP 1513836 | A1 | 20050316 | EP 2003-757109 | 20030605 |
| EP 1513836 | B1 | 20060503 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| CN 1675203 | A | 20050928 | CN 2003-818808 | 20030605 |
| JP 2005533051 | T | 20051104 | JP 2004-511296 | 20030605 |
| AT 325122 | T | 20060615 | AT 2003-757109 | 20030605 |
| AT 336491 | T | 20060915 | AT 2003-757108 | 20030605 |
| PT 1513836 | T | 20060929 | PT 2003-757109 | 20030605 |
| ES 2264001 | T3 | 20061216 | ES 2003-3757109 | 20030605 |
| ZA 2004009823 | A | 20060726 | ZA 2004-9823 | 20041203 |
| US 2006167007 | A1 | 20060727 | US 2004-516808 | 20041203 |
| PRIORITY APPLN. INFO.: | | | FR 2002-7001 A | 20020607 |
| | | | WO 2003-FR1686 W | 20030605 |

OTHER SOURCE(S): MARPAT 140:42206
GI

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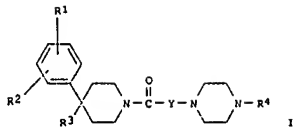

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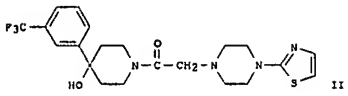


II

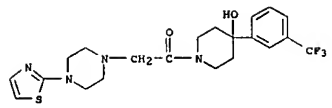
AB Title compds. I [wherein: Y = (CH2)n; n = 1 or 2; R1 = halo, CF3, alkyl, alkoxy, trifluoromethoxy; R2 = H, halo; R3 = H, ORS, CH2OR5, NH2 and derivs., NHCOR6 and derivs., NHCONH2 and derivs., CH2NR7R8, CH2NHCONH2 and derivs., alkoxycarbonyl, CONH2 and derivs.; or R3 forms a double bond between the carbon atom where it is bound to and the neighboring carbon atom of the piperidine cycle; R4 = 1,3-thiazol-2-yl; R5 = H, alkyl, alkylcarbonyl; R6 = alkyl, (CH2)mNH2 and derivs.; m = 1,2, or 3; R7, R8 = independently H, alkyl; R8 = (CH2)qOH, (CH2)qSMe; q = 2 or 3; or R7R8N = aziridine, azetidine, pyrrolidine, piperidine, morpholine; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, I (m.p. = 157-158°) was prepared by reacting 2-chloro-1-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) and 1-(1,3-thiazol-2-yl)piperazine dihydrochloride (preparation given) in the presence of KI/K2CO3/MeCN. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

IT 634613-42-6P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone
634613-43-7P 634613-45-9P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone Trihydrochloride
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

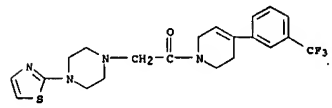
RN 634613-42-6 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



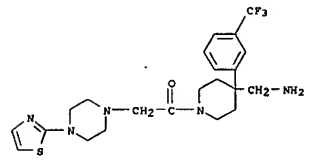




RN 634613-43-7 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-45-9 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

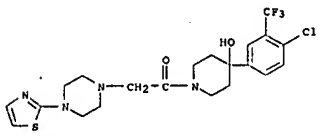
IT 634613-37-9P 634613-38-0P 634613-39-1P
634613-40-4P 634613-41-5P 634613-44-8P,
2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-3,6-dihydro-1-(2H)-pyridinyl]-1-ethanone dioxalate 634613-47-1P,
1-[4-[(Dimethylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-48-2P,
1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU



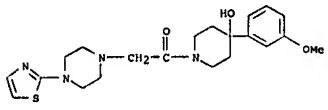


(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

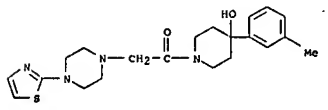
RN 634613-37-9 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-38-0 CAPLUS
CN 4-Piperidinol, 4-(3-methoxyphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



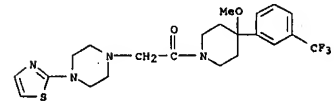
RN 634613-39-1 CAPLUS
CN 4-Piperidinol, 4-(3-methylphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-40-4 CAPLUS
CN Piperidine, 4-methoxy-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

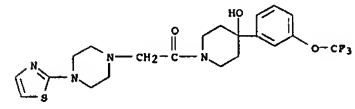






● HCl

RN 634613-41-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-44-8 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

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CRN 634613-43-7
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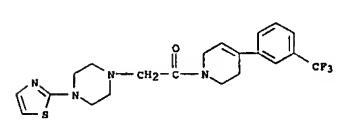

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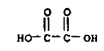
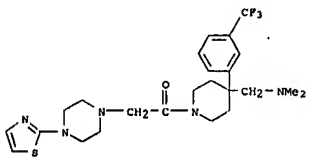


RN 634613-47-1 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-48-2 CAPLUS
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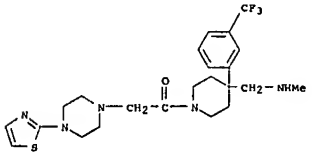
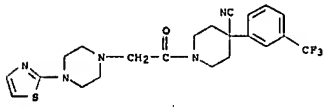


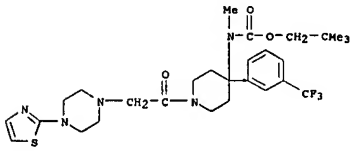
IT 634613-46-0P, 1-[2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634613-49-3P, tert-Butylmethyl [1-[2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methylcarbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)
RN 634613-46-0 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)







RN 634613-49-3 CAPLUS
CN Carbamic acid, methyl[1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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|---|---|---|
| FULL ESTIMATED COST | 6.21 | 178.97 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
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| CA SUBSCRIBER PRICE | -0.78 | -0.78 |

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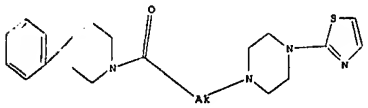
L4 STRUCTURE UPLOADED

=> d l4
L4 HAS NO ANSWERS
L4 STR



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SEARCH TIME: 00.00.01

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| FULL ESTIMATED COST | 172.10 | 351.07 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
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FILE COVERS 1907 - 14 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

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http://www.cas.org/infopolicy.html.

=> s l5 full
L6 1 L5

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L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991507 CAPLUS
DOCUMENT NUMBER: 140:42206
TITLE: Preparation of piperazinylacylpiperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Bono, Francoise; Bosch, Michaeel; Dos Santos, Victor; Herbert, Jean Marc; Nisato, Dino; Tonnerre, Bernard; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003104226 | A1 | 20031218 | WO 2003-FR1686 | 20030605 |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2003255645 | A1 | 20031222 | AU 2003-255645 | 20030605 |
| EP 1513836 | A1 | 20050316 | EP 2003-757109 | 20030605 |
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| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
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| AT 336491 | T | 20060915 | AT 2003-757108 | 20030605 |
| PT 1513836 | T | 20060929 | PT 2003-757109 | 20030605 |
| ES 2264001 | T3 | 20061216 | ES 2003-3757109 | 20030605 |
| ZA 2004009823 | A | 20060726 | ZA 2004-9823 | 20041203 |
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| PRIORITY APPLN. INFO.: | | | |
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OTHER SOURCE(S): MARPAT 140:42206
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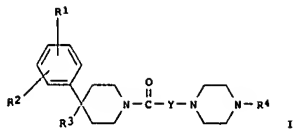

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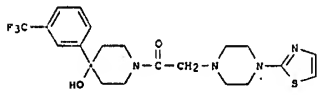


II

AB Title compds. I [wherein: Y = (CH2)n; n = 1 or 2; R1 = halo, CF3, alkyl, alkoxy, trifluoromethoxy; R2 = H, halo; R3 = H, OR5, CH2OR5, NH2 and derivs., NHCOR6 and derivs., NHCONH2 and derivs., CH2NR7R8, CH2NHCONH2 and derivs., alkoxycarbonyl, CONH2 and derivs.; or R3 forms a double bond between the carbon atom where it is bound to and the neighboring carbon atom of the piperidine cycle; R4 = 1,3-thiazol-2-yl; R5 = H, alkyl, alkylcarbonyl; R6 = alkyl, (CH2)mNH2 and derivs.; m = 1,2, or 3; R7, R8 = independently H, alkyl; R8 = (CH2)qOH, (CH2)qSMe; q = 2 or 3; or R7R8N = aziridine, azetidine, pyrrolidine, piperidine, morpholine; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, I (m.p. = 157-158°) was prepared by reacting 2-chloro-1-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) and 1-(1,3-thiazol-2-yl)piperazine dihydrochloride (preparation given) in the presence of KI/K2CO3/MeCN. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

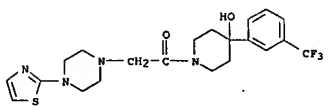
IT 634613-42-6P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-43-7P 634613-45-9P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone Trihydrochloride
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

RN 634613-42-6 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-





(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-43-7 CAPLUS
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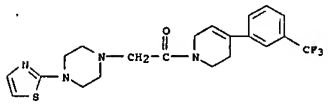

RN 634613-45-9 CAPLUS
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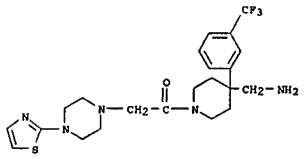


● 3 HCl

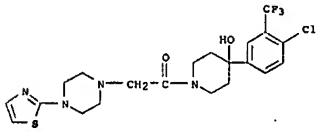
IT 634613-37-9P 634613-38-0P 634613-39-1P 634613-40-4P 634613-41-5P 634613-44-8P, 2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-3,6-dihydro-1-(2H)-pyridinyl]-1-ethanone dioxalate 634613-47-1P, 1-[4-[(Dimethylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-48-2P, 1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone



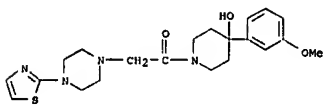


RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

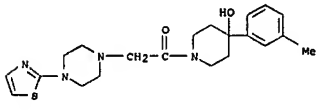
RN 634613-37-9 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-38-0 CAPLUS
CN 4-Piperidinol, 4-(3-methoxyphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-39-1 CAPLUS
CN 4-Piperidinol, 4-(3-methylphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-40-4 CAPLUS
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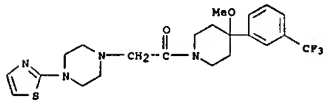
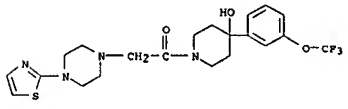


● HCl

RN 634613-41-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-44-8 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

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CRN 634613-43-7
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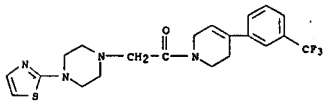

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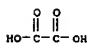
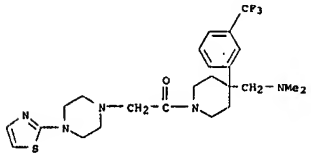
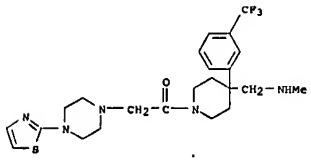
CRN 144-62-7
CMF C2 H2 O4



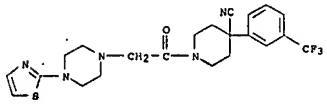
RN 634613-47-1 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-48-2 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



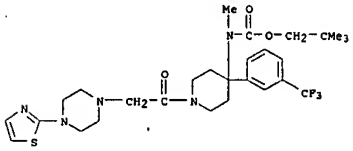
IT[1] 634613-46-0P, 1-[2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634613-49-3P, tert-Butylmethyl [1-[2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methylcarbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)
RN 634613-46-0 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)







RN 634613-49-3 CAPLUS
CN Carbamic acid, methyl[1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STRUCTURE FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2
DICTIONARY FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2

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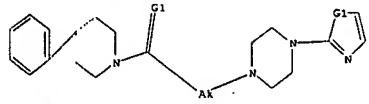

G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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FILE COVERS 1907 - 14 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.





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=> s l8 full
L9 1 L8

=> d ibib abs hitstr

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991507 CAPLUS
DOCUMENT NUMBER: 140:42206
TITLE: Preparation of piperazinylacylpiperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Bono, Francoise; Bosch, Michael; Dos Santos, Victor; Herbert, Jean Marc; Nisato, Dino; Tonnerre, Bernard; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2003104226 | A1 | 20031218 | WO 2003-FR1686 | 20030605 |
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| ES 2264001 | T3 | 20061216 | ES 2003-3757109 | 20030605 |
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| PRIORITY APPLN. INFO.: | | | FR 2002-7001 A | 20020607 |
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OTHER SOURCE(S): MARPAT 140:42206
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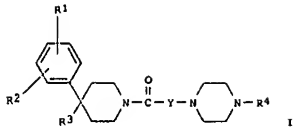
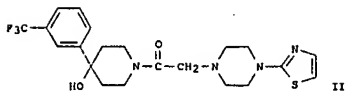


I



II

AB Title compds. I [wherein: Y = (CH2)n; n = 1 or 2; R1 = halo, CF3, alkyl, alkoxy, trifluoromethoxy; R2 = H, halo; R3 = H, OR5, CH2OR5, NH2 and derivs., NHCOR6 and derivs., NHCONH2 and derivs., CH2NR7R8, CH2NHCONH2 and derivs., alkoxycarbonyl, CONH2 and derivs.; or R3 forms a double bond between the carbon atom where it is bound to and the neighboring carbon atom of the piperidine cycle; R4 = 1,3-thiazol-2-yl; R5 = H, alkyl, alkylcarbonyl; R6 = alkyl, (CH2)mNH2 and derivs.; m = 1,2, or 3; R7, R8 = independently H, alkyl; R8 = (CH2)qOH, (CH2)qSMe; q = 2 or 3; or R7R8N = aziridine, azetidine, pyrrolidine, piperidine, morpholine; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, I (m.p. = 157-158°) was prepared by reacting 2-chloro-1-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) and 1-(1,3-thiazol-2-yl)piperazine dihydrochloride (preparation given) in the presence of KI/K2CO3/MeCN. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

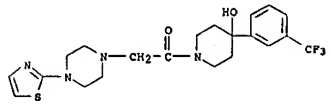
IT 634613-42-6P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone
634613-43-7P 634613-45-9P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone Trihydrochloride
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

RN 634613-42-6 CAPLUS

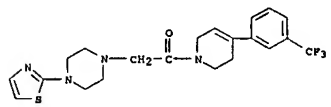




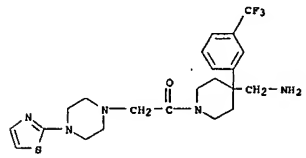
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-43-7 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-45-9 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

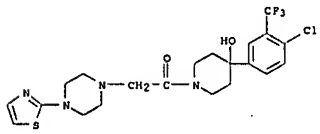
IT 634613-37-9P 634613-38-0P 634613-39-1P
634613-40-4P 634613-41-5P 634613-44-8P,
2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-3,6-dihydro-1-(2H)-pyridinyl]-1-ethanone dioxalate 634613-47-1P,
1-[4-[(Dimethylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-48-2P,
1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-



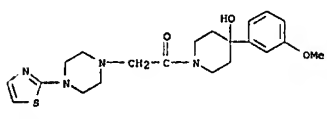


[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

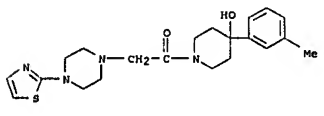
RN 634613-37-9 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-38-0 CAPLUS
CN 4-Piperidinol, 4-(3-methoxyphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



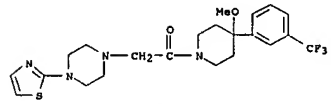
RN 634613-39-1 CAPLUS
CN 4-Piperidinol, 4-(3-methylphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-40-4 CAPLUS
CN Piperidine, 4-methoxy-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

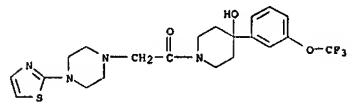






● HCl

RN 634613-41-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-44-8 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

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CRN 634613-43-7
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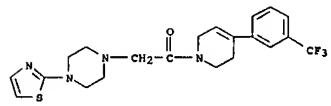
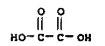
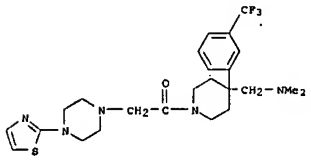


CM 2

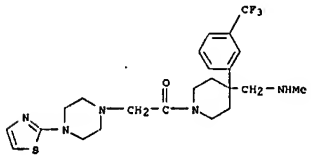
CRN 144-62-7
CMF C2 H2 O4



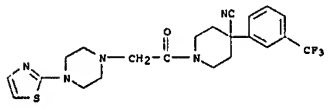
RN 634613-47-1 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-48-2 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



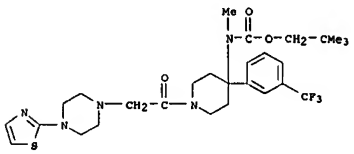
IT 634613-46-0P, 1-[2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634613-49-3P, tert-Butylmethyl [1-[2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methylcarbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)
RN 634613-46-0 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)







RN 634613-49-3 CAPLUS
CN Carbamic acid, methyl[1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 6.68 | 537.00 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -0.78 | -2.34 |

FILE 'REGISTRY' ENTERED AT 09:56:27 ON 14 AUG 2007
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DICTIONARY FILE UPDATES: 13 AUG 2007 HIGHEST RN 944501-68-2

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http://www.cas.org/support/stngen/stndoc/properties.html

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L10 HAS NO ANSWERS
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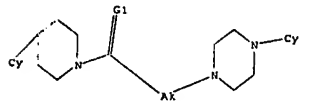

G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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FULL SCREEN SEARCH COMPLETED - 225112 TO ITERATE

100.0% PROCESSED 225112 ITERATIONS 378 ANSWERS
SEARCH TIME: 00.00.02

L11 378 SEA SSS FUL L10

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FILE COVERS 1907 - 14 Aug 2007 VOL 147 ISS 8
FILE LAST UPDATED: 13 Aug 2007 (20070813/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.





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http://www.cas.org/infopolicy.html

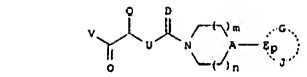
=> s l11 full
L12 22 L11

=> d ibib abs hitstr tot

L12 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:705719 CAPLUS
DOCUMENT NUMBER: 147:118256
TITLE: Preparation of piperidine-1-carboxamide derivatives and spirocycles thereof as antagonists of calcitonin gene-related peptide receptors
INVENTOR(S): Chaturvedula, Prasad V.; Chen, Ling; Civiello, Rita; Degnan, Andrew P.; Dubowchik, Gene M.; Han, Xiaojun; Jiang, Xiang Jun J.; Macor, John E.; Poindexter, Graham S.; Tora, George O.; Luo, Guanglin
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: U.S. Pat. Appl. Publ., 198pp., Cont.-in-part of U.S. Ser. No. 729,155.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2007149503 | A1 | 20070628 | US 2007-620308 | 20070105 |
| US 2004204397 | A1 | 20041014 | US 2003-729155 | 20031205 |
| US 7220862 | B2 | 20070522 | | |
| PRIORITY APPLN. INFO.: | | | US 2003-729155 | A2 20031205 |
| | | | US 2002-386138P | P 20020605 |
| | | | US 2002-388617P | P 20020613 |
| | | | US 2002-389870P | P 20020619 |
| | | | US 2002-393200P | P 20020701 |
| | | | US 2002-413534P | P 20020925 |
| | | | US 2003-445523 | A2 20030527 |

GI



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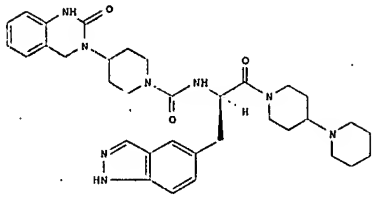


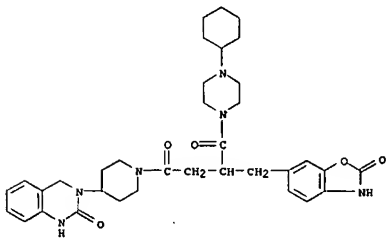
II

AB The title compds. [I; V = N(R1)(R2) or OR4; R4 = H, C1-6 alkyl, C1-4 haloalkyl, etc.; R1, R2 = independently H, each (un)substituted C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, -C1-6alkyleneamino(C1-3alkyl)2, C3-7 cycloalkyl, Ph, azetidinyl, adamantyl, tetrahydrofuranyl, furanyl, dioxolanyl, thienyl, tetrahydrothienyl, pyrrolyl, pyrrolinyl, pyrrolidinyl, imidazolyl, imidazolinyl, imidazolidinyl, etc.; R1 and R2 optionally and independently contain 1 or 2 carbonyls or optionally and independently interrupted from the nitrogen to which C1-3 alkylene or C1-3 alkylidene; or NR1R2 together form each (un)substituted azetidinyl, pyrrolyl, pyrrolinyl, pyrrolidinyl, imidazolinyl, imidazolidinyl, pyrazolinyl, pyrazolidinyl, azepinyl, or diazepinyl, or spirocyclic ring, etc.; Q = (Sy)aR3, NH(Sy)aR3, NHC(O)(Sy)aR3, NHC(O)O(Sy)aR3, NHC(O)NH(Sy)aR3, O(Sy)aR3, (Sy)aNHR3, etc.; wherein Sy = C1-3 alkylene or C1-3 alkylidene; a = 0 or 1; U = CH2, NH; R3 = (i) heterocycle having two 5 to 7 membered fused rings, (ii) 4 to 6 membered heterocycle containing 1-3 heteroatoms selected from O, N and S optionally containing 1 to 2 carbonyls, (iii) C3-7 cycloalkyl, etc.; D = O, N(CN) or N(SO2-C1-3 alkyl); A = C; m, n = 1; E = N, CH, C; p = 0; G, J and E together form a fused heterocycle having two 5- to 7-membered fused rings optionally containing 1 or 2 carbonyls] or pharmaceutically acceptable salts thereof are prepared These compds. are antagonists of calcitonin gene-related peptide receptors (CGRP receptor) and are useful in therapy for treatment of neurogenic vasodilacation, neurogenic inflammation, migraine and other headaches, thermal injury, circulatory shock, flushing associated with menopause, airway inflammatory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), and other conditions the treatment of which can be effected by the antagonism of CGRP-receptors. Thus, (R)-2-[[[4-(2-oxo-1,4-dihydro-2H-quinazolin-3-yl)piperidin-1-yl]carbonyl]amino]-3-[1-[[2-(trimethylsilanyl)ethyl]sulfonyl]-1H-indazol-5-yl]propionic acid was condensed with 4-piperidinopiperidine using PyBOP in CH2Cl2 at room temperature
for 16 h followed by treatment with CsF at 80° in MeCN to give (R)-4-(2-Oxo-1,4-dihydro-2H-quinazolin-3-yl)piperidine-1-carboxylic acid [2-[1,4']bipiperidinyl-1'-yl-1-(1H-indazol-5-ylmethyl)-2-oxoethyl]amide (II). II showed IC50 of ≤10 nM for inhibiting the binding of [125I]CGRP to homogenate of SK-NMC cells.





IT 773886-69-4P, 1-(4-Cyclohexylpiperazin-1-yl)-2-[(2-oxo-2,3-dihydrobenzoxazol-6-yl)methyl]-4-[4-(2-oxo-1,4-dihydro-2H-quinazolin-3-yl)piperidin-1-yl]butane-1,4-dione
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperidine-1-carboxamide derivs. and spirocyclic compds. thereof as antagonists of calcitonin gene-related peptide receptors)
RN 773886-69-4 CAPLUS
CN Piperazine, 1-cyclohexyl-4-[2-[(2,3-dihydro-2-oxo-6-benzoxazolyl)methyl]-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:143519 CAPLUS
DOCUMENT NUMBER: 146:229382
TITLE: Preparation of dipiperazinyl ketones and related analogues as modulators of histamine H3 receptor binding
INVENTOR(S): Xie, Linghong; Ochterski, Joseph W.; Gao, Yang; Han, Bingsong; Caldwell, Timothy M.; Xu, Yuelian; Peterson, John M.; Ge, Ping; Ohliger, Robert
PATENT ASSIGNEE(S): Neurogen Corporation, USA
SOURCE: PCT Int. Appl., 279pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2007016496 | A2 | 20070208 | WO 2006-US29761 | 20060728 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,

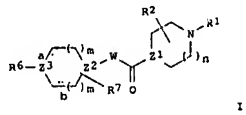




MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

| | | | | |
|---|---|---|---|---|
| US 2007049571 | A1 | 20070301 | US 2006-495986 | 20060728 |

PRIORITY APPLN. INFO.: US 2005-704722P P 20050802
OTHER SOURCE(S): MARPAT 146:229382
GI



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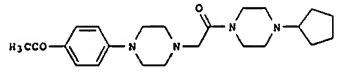


II

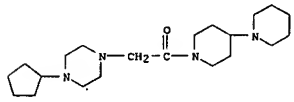
AB Title compds. I [Z1 and Z2 independently = N or CRa wherein Ra = H, OH, halo, alkyl, etc.; Z3 = N or CRb wherein Rb = absent, H, OH, alkyl, etc.; bonds a and b independently represent single or double bond such that if Z3 = N, then bond a is single bond and at least on oe bond a or bond b = single bond; W = CRJR4, NR5, COCR3R4, CO2R3R4; R3 and R4 independently = H, alkyl, haloalkyl, etc.; R5 = H, alkyl, haloalkyl, etc.; each m independently = 0-2, such that neither m = 0 if both Z2 and Z3 = N; n = 0-2; R1 = (un)substituted alkyl, alkenyl, alkynyl, etc.; R2 = 0-4 substituents chosen from alkyl and groups that are taken together to form alkylene bridge; R6 = (un)substituted alkanoyl, alkoxycarbonyl, alkenyl, etc.; R7 = 0-4 substituents chosen from alkyl and groups that are taken together to form alkylene bridge], and their pharmaceutically acceptable salts, are prepared and disclosed as modulators of histamine H3 receptor binding. Thus, e.g., II was prepared by acetylation of 1-cyclopentylpiperazine with bromoacetyl bromide followed by N-alkylation of 1-(4-piperazin-1-ylphenyl)ethanone. Details for bioassays are described (no data). I may generally be used to modulate ligand binding to histamine H3 receptors in vivo or in vitro, and are particularly useful in the treatment of a variety of disorders in humans, domesticated companion animals and livestock animals. Pharmaceutical comps. and therapeutic methods are provided, as are methods for using such ligands for detecting histamine H3 receptors ( e.g., receptor localization studies).

IT 923932-69-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES





(Uses)
(preparation of dipiperazinyl ketones and related analogs as histamine H3 receptor modulators)
RN 923932-69-8 CAPLUS
CN Ethanone, 1-[1,4'-bipiperidin]-1'-yl-2-(4-cyclopentyl-1-piperazinyl)- (CA INDEX NAME)

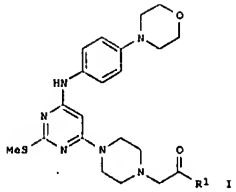


L12 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354308 CAPLUS
DOCUMENT NUMBER: 146:100725
TITLE: Preparation of anilino pyrimidine derivatives for treatment of Hepatitis C virus
INVENTOR(S): Kim, Jong Woo; Lee, Sang Wook; Lee, Geun Hyung; Han, Jae Jin; Park, Sang Jin; Park, Eul Yong; Shin, Joong Chul
PATENT ASSIGNEE(S): B & C Biopharm. Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 49pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006137706 | A1 | 20061228 | WO 2006-KR2416 | 20060622 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: KR 2005-54885 A 20050624
OTHER SOURCE(S): MARPAT 146:100725
GI



AB Title compds. represented by the formula I [wherein R1 = -N(R2)-(CH2)n-R3, 4-R4-(Het)-1-yl or (un)substituted heteroaryl; R2 = H, benzyl or alkyl; R3 = H, halo, OH, etc.; R4 = H, carbamoyl, alkyl, etc.; n = 0-4; Het = piperazine or piperidine; and pharmaceutically acceptable salts thereof] were prepared. For example, I (R1 = MeNH) was provided in a multi-step synthesis starting from the reaction of 4,6-dichloro-2-(methylthio)pyrimidine with 4-(morpholino)aniline. The prepared title compds. showed inhibitory effect on activity of HCV RNA polymerase in vitro and low toxicity, thus can be advantageously used as a therapeutic or prophylactic agent of hepatitis C..

IT 917594-61-7P, 2-Methylthio-6-[4-(morpholino)anilino]-4-[4-[[[4-(1-pyrrolidinyl)piperidino]carbonyl]methyl]piperazin-1-yl]pyrimidine
917594-62-8P, 2-Methylthio-6-[4-(morpholino)anilino]-4-[4-[[[4-(piperidino)piperidino]carbonyl]methyl]piperazin-1-yl]pyrimidine
917594-63-9P, 2-Methylthio-6-[4-(morpholino)anilino]-4-[4-[[[4-(morpholino)piperidino]carbonyl]methyl]piperazin-1-yl]pyrimidine
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of anilino pyrimidine derivs. for treatment of Hepatitis C virus)

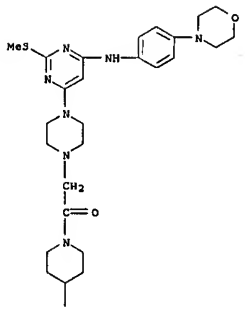
RN 917594-61-7 CAPLUS

CN Ethanone, 2-[4-[2-(methylthio)-6-[[4-(4-morpholinyl)phenyl]amino]-4-pyrimidinyl]-1-piperazinyl]-1-[4-(1-pyrrolidinyl)-1-piperidinyl]- (CA INDEX NAME)





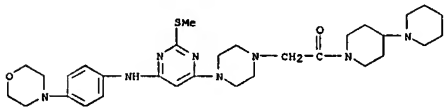
PAGE 1-A



PAGE 2-A

RN 917594-62-8 CAPLUS

CN Ethanone, 1-[1,4'-bipiperidin]-1'-yl-2-[4-[2-(methylthio)-6-[[4-(4-morpholinyl)phenyl]amino]-4-pyrimidinyl]-1-piperazinyl]- (CA INDEX NAME)

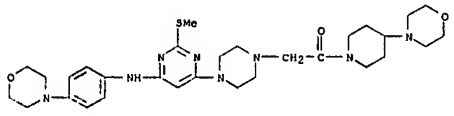


RN 917594-63-9 CAPLUS

CN Ethanone, 2-[4-[2-(methylthio)-6-[[4-(4-morpholinyl)phenyl]amino]-4-pyrimidinyl]-1-piperazinyl]-1-[4-(4-morpholinyl)-1-piperidinyl]- (CA INDEX NAME)







REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1173484 CAPLUS
DOCUMENT NUMBER: 145:489283
TITLE: N-Acylpiperidines and related compounds as CGRP-antagonists, methods for preparing them, pharmaceutical compositions and their use as pharmaceutical compositions
INVENTOR(S): Mueller, Stephan Georg; Rudolf, Klaus; Lustenberger, Philipp; Stenkamp, Dirk; Santagostino, Marco; Paleari, Fabio; Schaenzle, Gerhard; Arndt, Kirsten; Doods, Henri
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 156pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2006252931 | A1 | 20061109 | US 2006-277177 | 20060322 |
| WO 2005092880 | A1 | 20051006 | WO 2005-EP3094 | 20050323 |

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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| WO 2005103037 | A2 | 20051103 | WO 2005-EP4104 | 20050418 |
| WO 2005103037 | A3 | 20060112 | | |

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| EP 1770091 | A1 | 20070404 | EP 2005-21283 | 20050929 |

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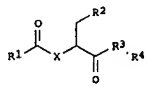
PRIORITY APPLN. INFO.:

| | | |
|---|---|---|
| AR 2005-101139 | A | 20050323 |
| WO 2005-EP3094 | A | 20050323 |
| WO 2005-EP4104 | A | 20050418 |
| EP 2005-21283 | A | 20050929 |
| DE 2004-102004015723A | | 20040329 |
| DE 2004-102004019492A | | 20040422 |

OTHER SOURCE(S): MARPAT 145:489283

GI



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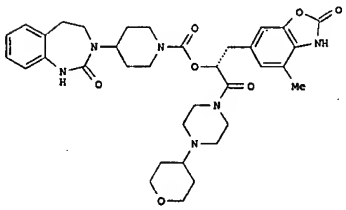

II

AB The invention relates to the CGRP-antagonists of general formula I, the tautomers, the isomers, the diastereomers, the enantiomers, the hydrates, mixts. and salts thereof and the hydrates of the salts, particularly the physiol. acceptable salts thereof with inorg. or organic acids or bases, as well as those compds. of general formula I in which one or more hydrogen atoms are replaced by deuterium, pharmaceutical compns. containing these compds., the use thereof and processes for the preparation thereof. Compds. of formula I wherein X is CH2, NH, C1-3 alkyl-N, O and S; R1 is (spiro)substituted piperidine and oxodihydrothienopyrimidinyl; R2 is (un)substituted (un)fused aryl, and (un)substituted (un)fused pyridine; R3 is (un)substituted piperidine, (un)substituted piperazine, and (un)substituted diazepine; R4 is (un)substituted 4- to 7-membered oxycycloalkyl; and their tautomers and pharmaceutically acceptable salts thereof, are claimed. Example compound II was prepared by cyclization of

2-amino-3-methylphenol with CDI; the resulting 4-methyl-3H-benzoxazole-2-one underwent bromination to give 6-bromo-4-methyl-3H-benzoxazol-2-one, which underwent coupling with Me 2-acetylaminoacrylate to give Me 2-acetylamino-3-(4-methyl-2-oxo-2,3-dihydrobenzoxazol-6-yl)acrylate, which underwent hydrolysis to give 3-(4-methyl-2-oxo-2,3-dihydrobenzoxazole-6-yl)-2-oxopropionic acid, which underwent asym. reduction to give (R)-2-hydroxy-3-(4-methyl-2-oxo-2,3-dihydrobenzoxazol-6-yl)propionic acid, which underwent esterification to give the corresponding Me ester, which reacted with 4-nitrophenyl chloroformate and 3-(piperidin-4-yl)-1,3,4,5-tetrahydro-1,3-benzodiazepin-2-one followed by hydrolysis to give (R)-1-carboxy-2-(4-methyl-2-oxo-2,3-dihydrobenzoxazol-6-yl)ethyl 4-(2-oxo-1,3,4,5-tetrahydro-1,3-benzodiazepin-3-yl)piperidine-1-carboxylate, which underwent amidation with 1-(tetrahydropyran-4-yl)piperazine to give compound II. All the invention compds. were evaluated for their CGRP binding affinity. The tested compds. exhibited IC50 values ≥ 10 000 nM.

IT 910573-18-1P 910573-24-9P 910573-27-2P
910573-30-7P 910573-33-0P 910573-39-6P
910573-45-4P 910573-47-6P 910573-50-1P
910573-53-4P 910573-59-0P 910573-68-1P
910573-71-6P 910573-74-9P 910573-80-7P
910573-86-3P 910573-88-5P 910573-93-2P
910573-94-3P 910573-97-6P 910573-98-7P
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910574-32-2P 910574-34-4P 910574-48-0P
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910574-72-0P 910574-76-4P 910574-83-3P
910574-86-6P 910574-89-9P 910574-92-4P
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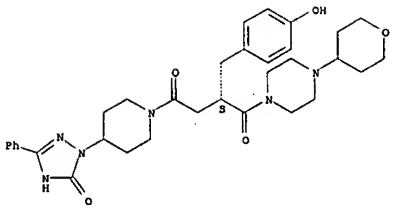
910575-24-5P 910575-25-6P 910575-26-7P
910575-31-4P 910575-34-7P 914381-60-5P
914381-61-6P 914381-81-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of N-acylpiperidines and related compds. as CGRP-antagonists useful as therapeutic agents)

RN 910573-18-1 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxyphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

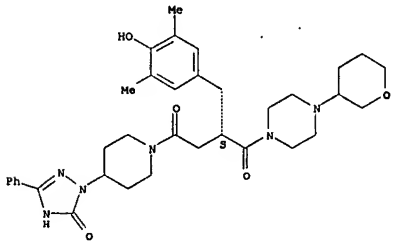






RN 910573-24-9 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

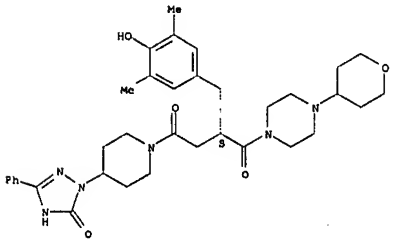


RN 910573-27-2 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

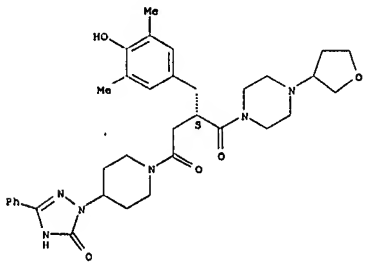






RN 910573-30-7 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

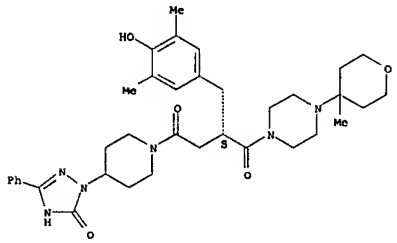


RN 910573-33-0 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

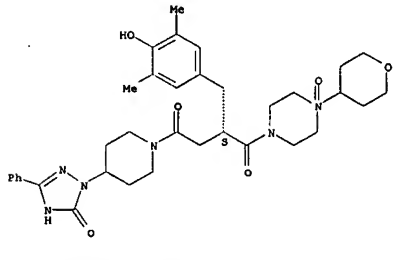






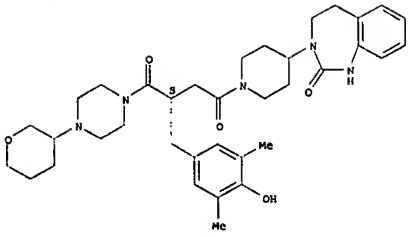
RN 910573-39-6 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910573-45-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910573-47-6 CAPLUS
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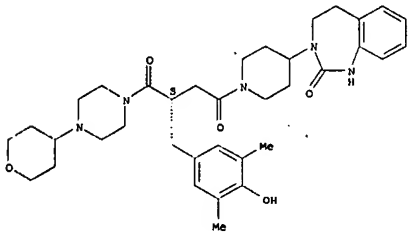
Absolute stereochemistry.

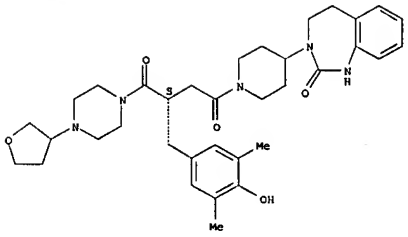


RN 910573-50-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-hydroxy-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

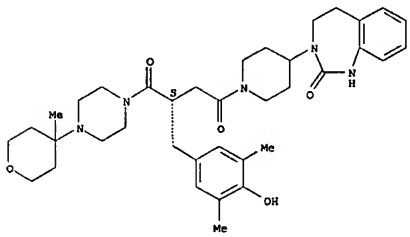






RN 910573-53-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-hydroxy-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

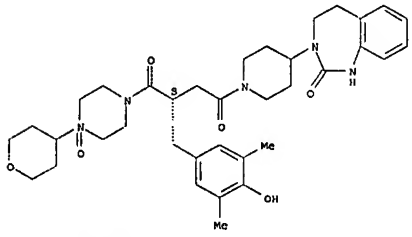


RN 910573-59-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

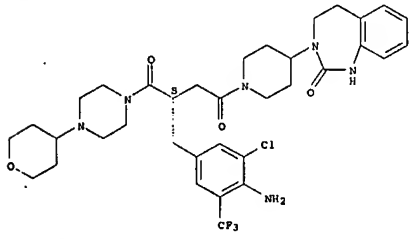






RN 910573-68-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

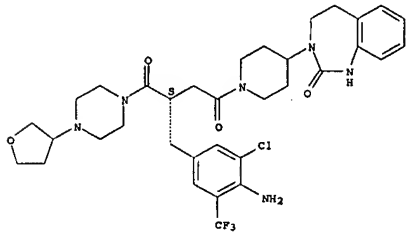


RN 910573-71-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

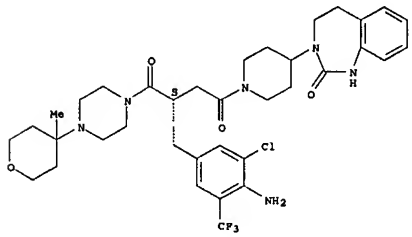






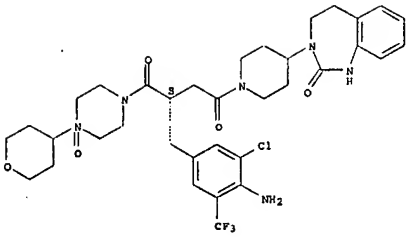
RN 910573-74-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



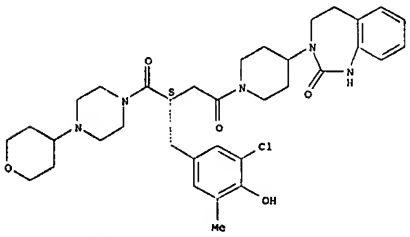
RN 910573-80-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910573-86-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

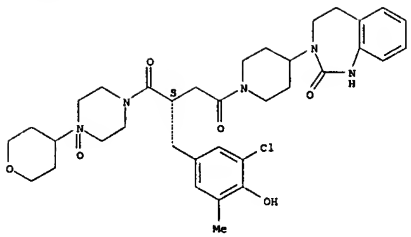


RN 910573-88-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

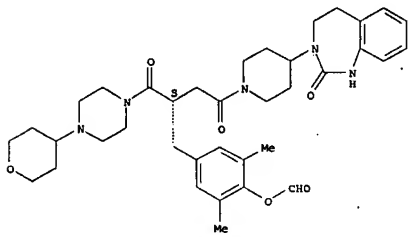






RN 910573-93-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

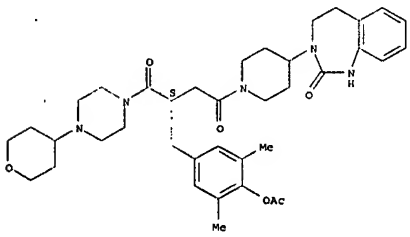


RN 910573-94-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

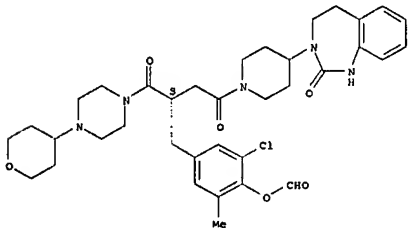






RN 910573-97-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-(formyloxy)-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

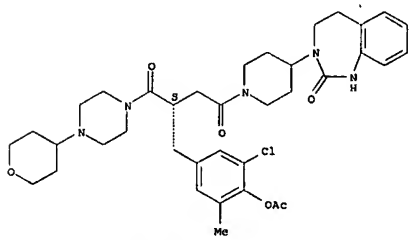


RN 910573-98-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3-chloro-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

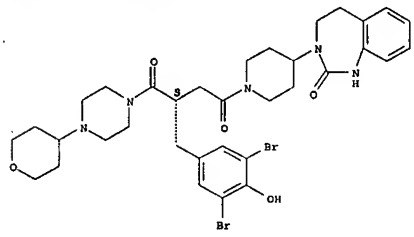






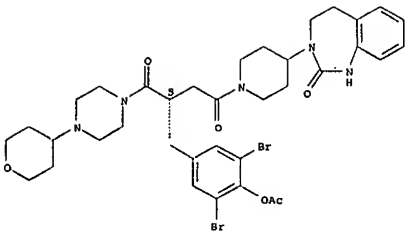
RN 910574-02-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,5-dibromo-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



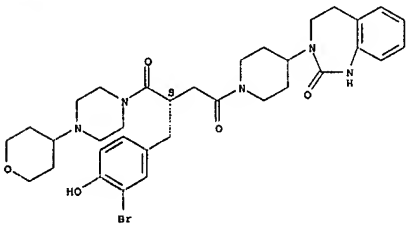
RN 910574-08-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dibromophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-11-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-bromo-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

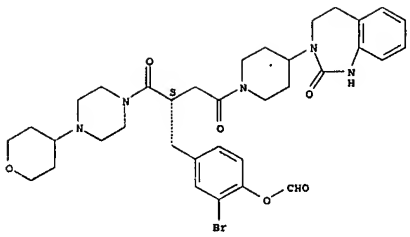


RN 910574-14-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-bromo-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

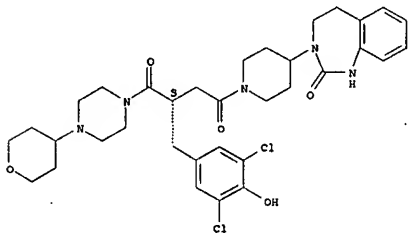






RN 910574-17-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,5-dichloro-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

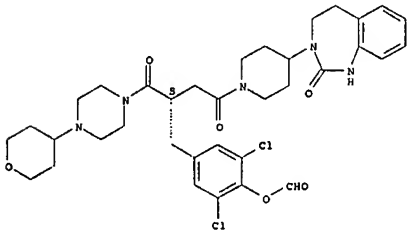


RN 910574-20-8 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3,5-dichloro-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

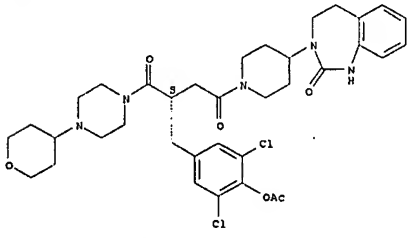






RN 910574-23-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dichlorophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

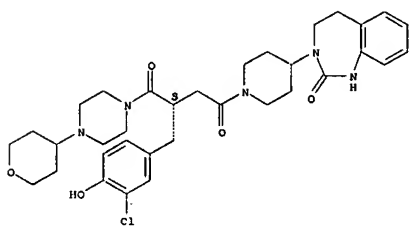


RN 910574-26-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-chloro-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

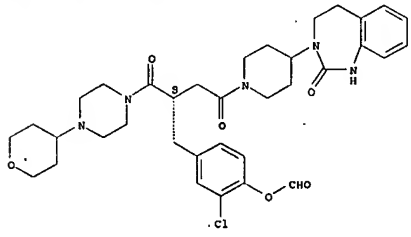






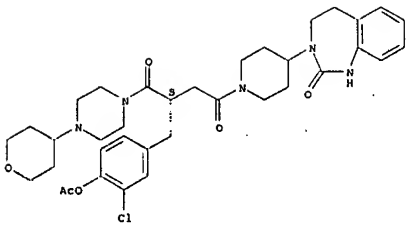
RN 910574-29-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



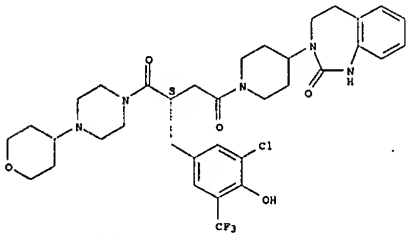
RN 910574-32-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3-chlorophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-34-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

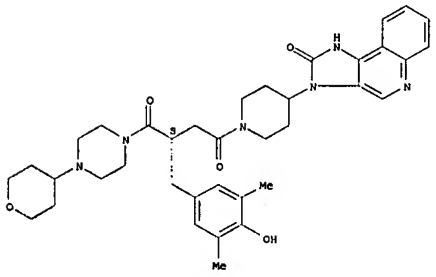


RN 910574-48-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-methyl-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

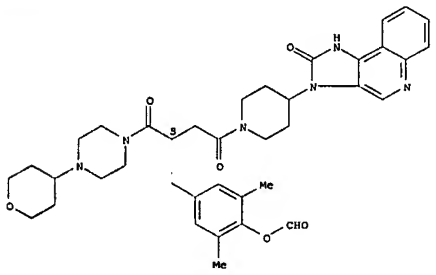






RN 910574-69-5 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

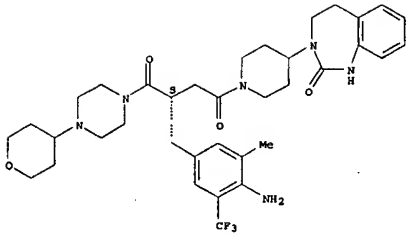


RN 910574-72-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

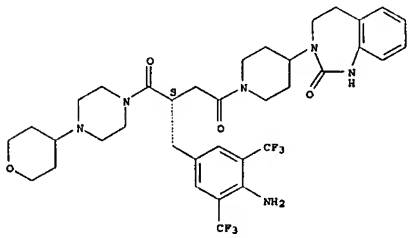






RN 910574-54-8 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3,5-bis(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

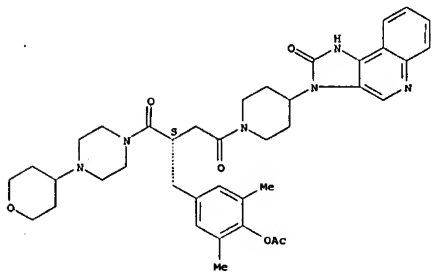


RN 910574-65-1 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

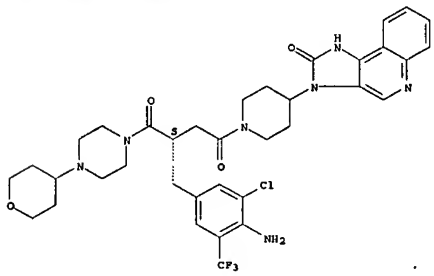






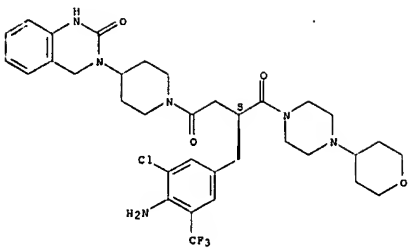
RN 910574-76-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



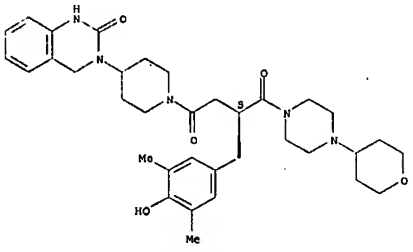
RN 910574-83-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-86-6 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

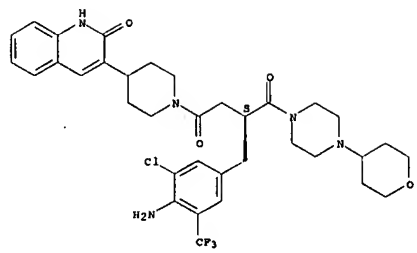


RN 910574-89-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3-quinolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

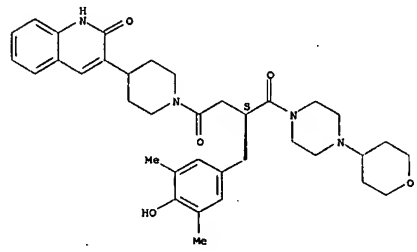






RN 910574-92-4 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3-quinolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

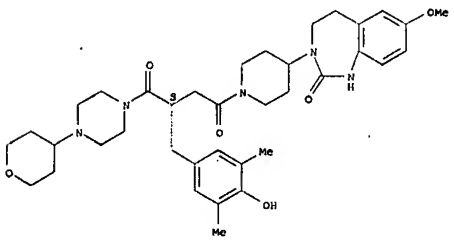


RN 910575-15-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

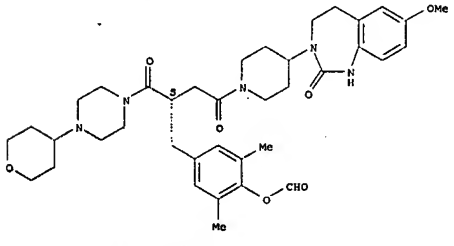






RN 910575-16-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

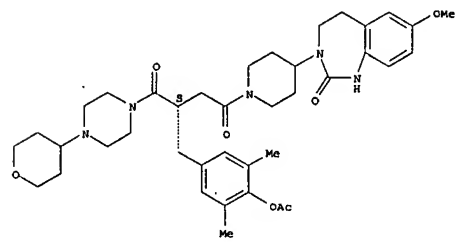


RN 910575-17-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

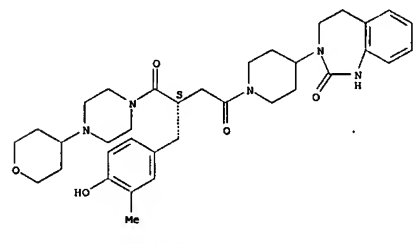






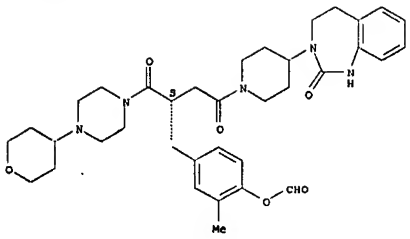
RN 910575-24-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



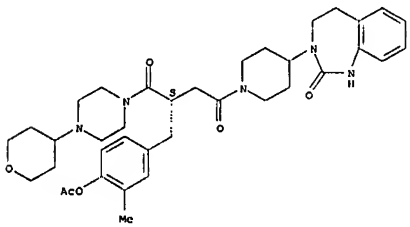
RN 910575-25-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910575-26-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

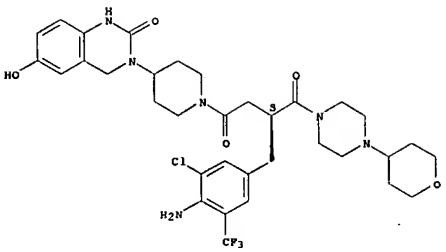


RN 910575-31-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-6-hydroxy-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

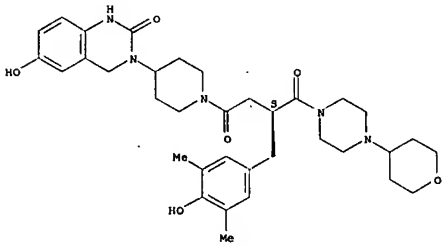






RN 910575-34-7 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-6-hydroxy-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

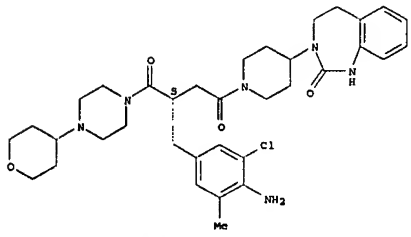


RN 914381-60-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-amino-3-chloro-5-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

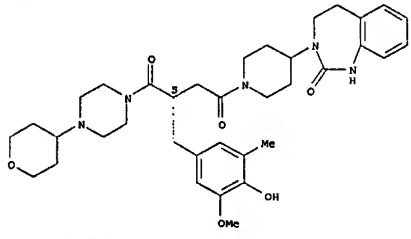






RN 914381-61-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3-methoxy-5-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

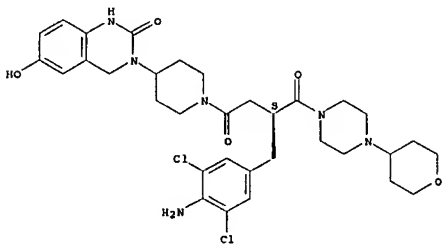


RN 914381-81-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-amino-3,5-dichlorophenyl)methyl]-4-[4-(1,4-dihydro-6-hydroxy-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.







L12 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1005390 CAPLUS
DOCUMENT NUMBER: 145:356814
TITLE: Preparation of 2-oxo-1,2,4,5-tetrahydro-1,3-benzodiazepin-3-ylpiperidines and related compounds as CGRP receptor antagonists
INVENTOR(S): Mueller, Stephan Georg; Rudolf, Klaus; Lustenberger, Philipp; Stenkamp, Dirk; Santagostino, Marco; Paleari, Fabio; Dooda, Henri; Arndt, Kirsten; Schaenzle, Gerhard
PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G.
SOURCE: PCT Int. Appl., 231pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006100009 | A1 | 20060928 | WO 2006-EP2515 | 20060318 |
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PRIORITY APPLN. INFO.: WO 2005-EP3094 A 20050323
WO 2005-EP4104 A 20050418
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DE 2004-102004015723A 20040329
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OTHER SOURCE(S): MARPAT 145:356814

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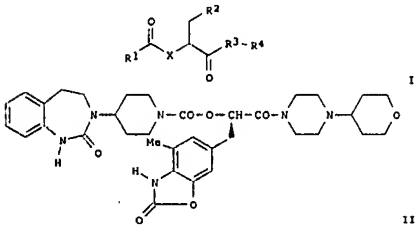

I



II

AB Title compds. I [X = CH2, NH, O, etc.; R1 = substituted 2-oxo-1,2,4,5-tetrahydro-1,3-benzodiazepin-3-ylpiperidines, etc.; R2 = 5-methylquinoxalines, 8-methylimidazo[1,2-a]pyridines, etc.; R3 = substituted piperidines, piperazines, etc.; R4 = 4 to 7-membered





ocicycloalkyl ring with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, benzodiazepinylpiperidine II was prepared from 5-amino-m-cresol in 8-steps. In CGRP receptor inhibition assays, compds. I exhibited IC50 values ≤ 10000 nM.

IT 910573-18-1P 910573-24-9P 910573-27-2P
910573-30-7P 910573-33-0P 910573-39-6P
910573-45-4P 910573-47-6P 910573-50-1P
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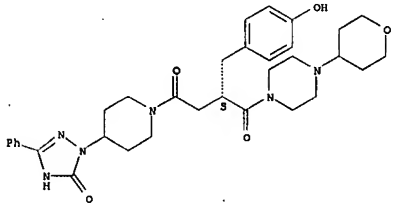
910575-34-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of oxotetrahydrobenzodiazepinylpiperidines and related compds. as CGRP receptor antagonists)

RN 910573-18-1 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxyphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

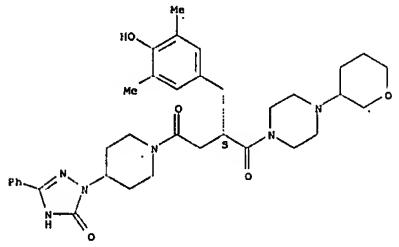


RN 910573-24-9 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

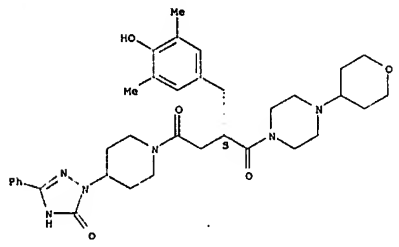






RN 910573-27-2 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

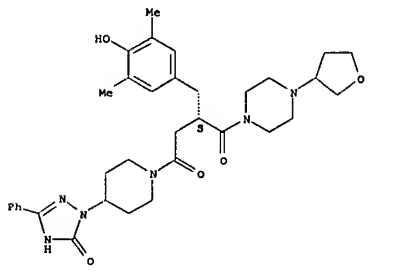


RN 910573-30-7 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

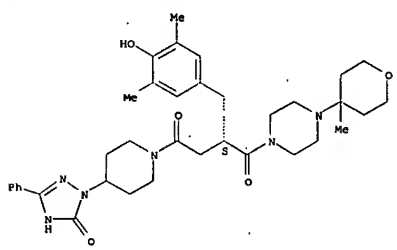






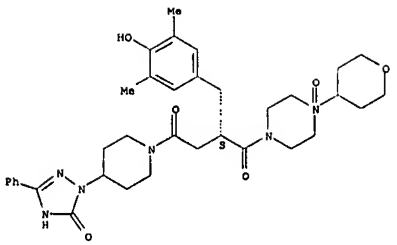
RN 910573-33-0 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



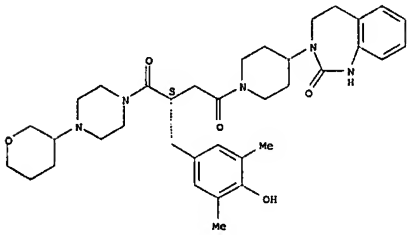
RN 910573-39-6 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910573-45-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

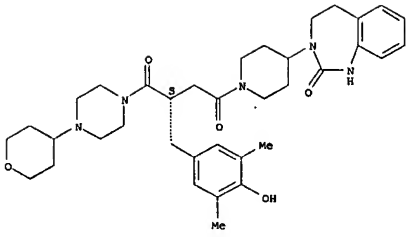


RN 910573-47-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

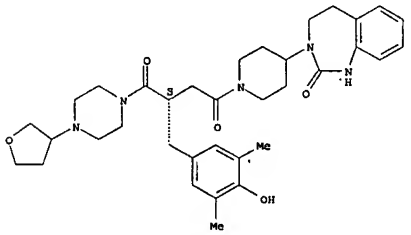






RN 910573-50-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

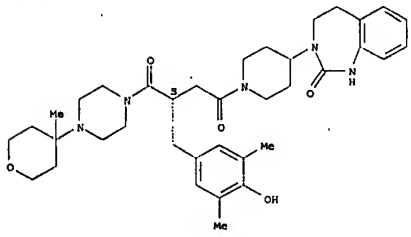


RN 910573-53-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

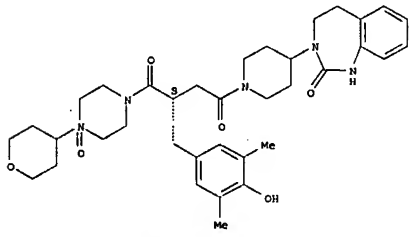






RN 910573-59-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

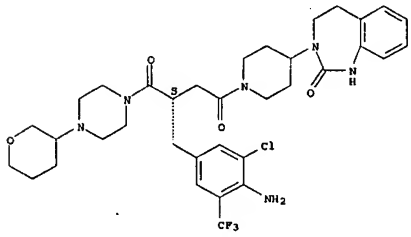


RN 910573-65-8 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

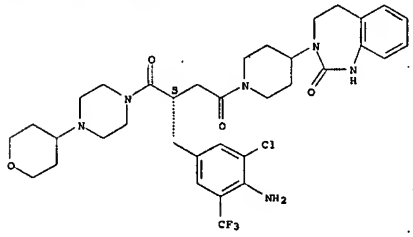






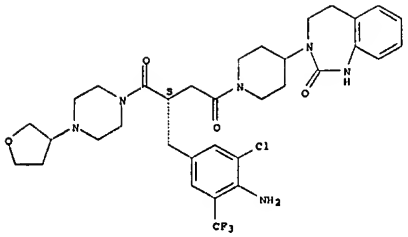
RN 910573-68-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



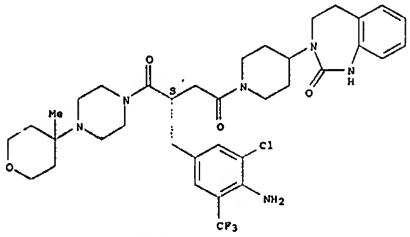
RN 910573-71-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-3-furanyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910573-74-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-4-methyl-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

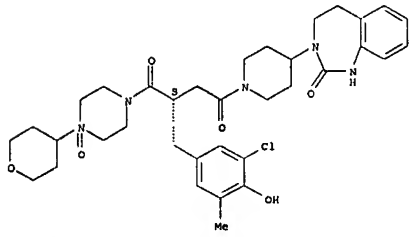


RN 910573-80-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

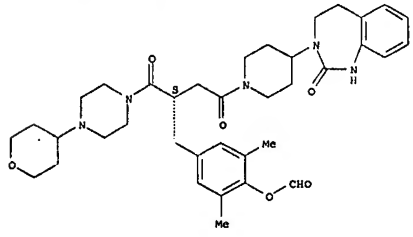






RN 910573-93-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

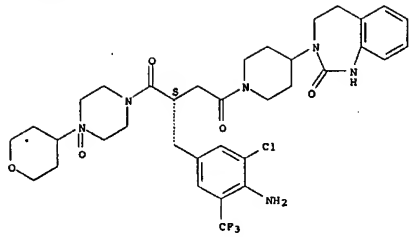


RN 910573-94-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

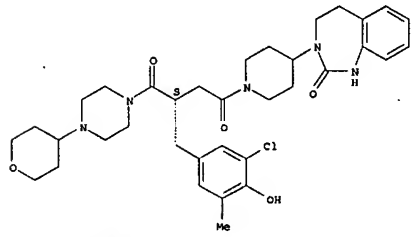






RN 910573-86-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-chloro-4-hydroxy-5-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

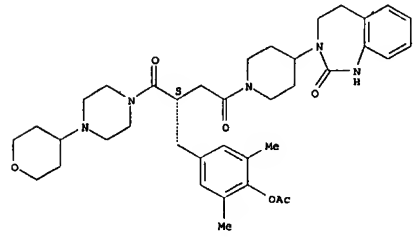


RN 910573-88-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-chloro-4-hydroxy-5-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)-, 4-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

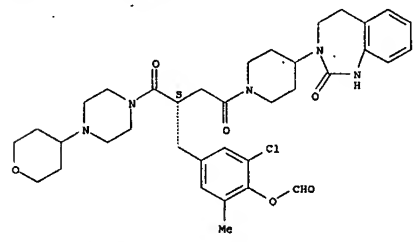






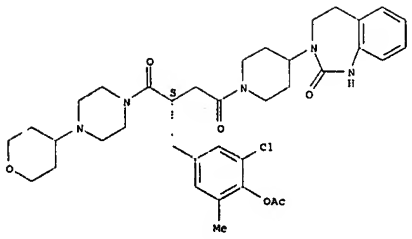
RN 910573-97-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-chloro-4-(formyloxy)-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



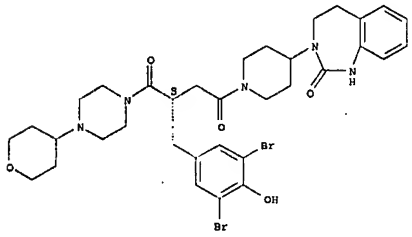
RN 910573-98-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-(acetyloxy)-3-chloro-5-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-02-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,5-dibromo-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

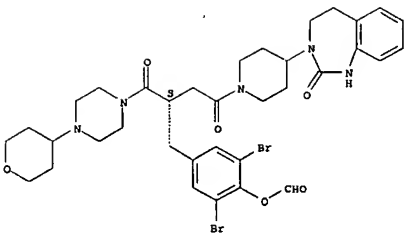


RN 910574-05-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3,5-dibromo-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

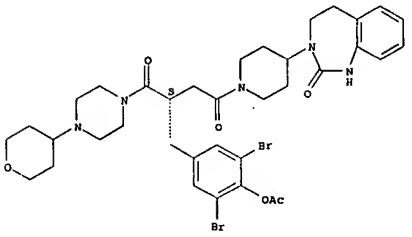






RN 910574-08-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dibromophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

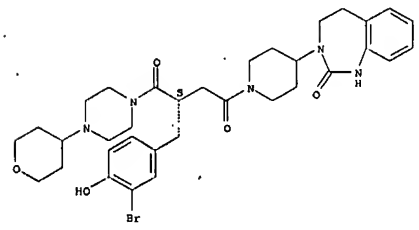


RN 910574-11-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-bromo-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

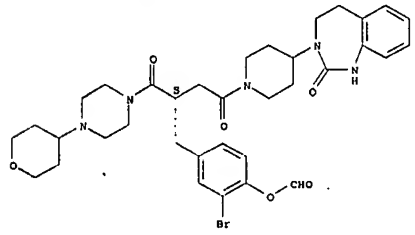






RN 910574-14-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-bromo-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

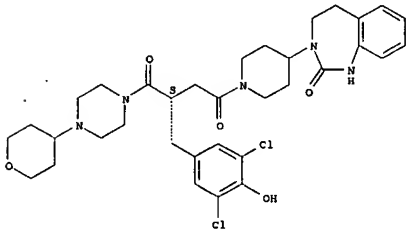


RN 910574-17-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,5-dichloro-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

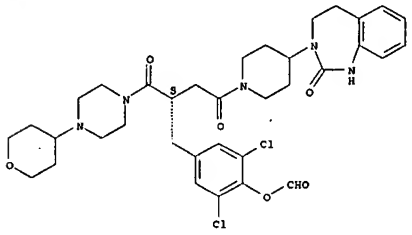






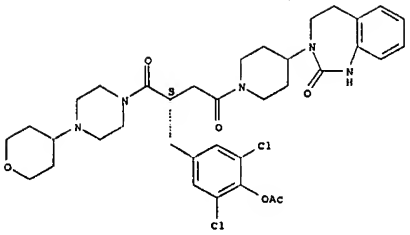
RN 910574-20-8 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3,5-dichloro-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



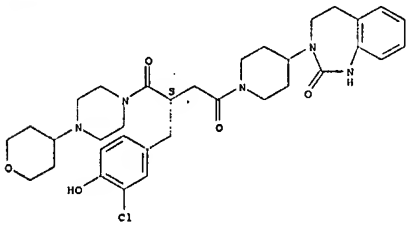
RN 910574-23-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dichlorophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-26-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3-chloro-4-hydroxyphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

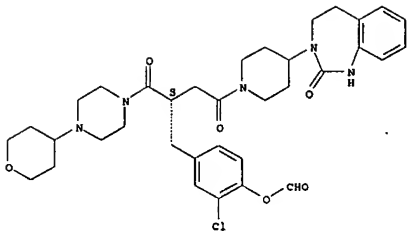


RN 910574-29-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-(formyloxy)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

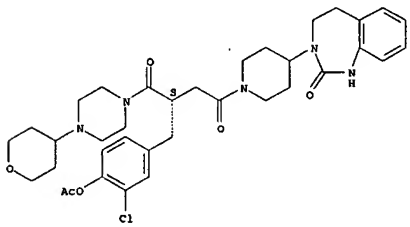






RN 910574-32-2 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3-chlorophenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

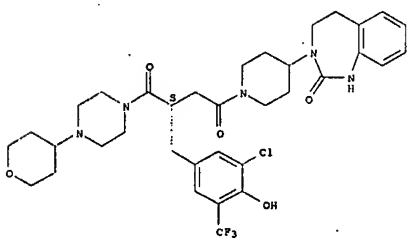


RN 910574-34-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

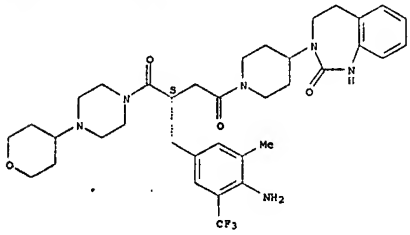






RN 910574-48-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-methyl-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

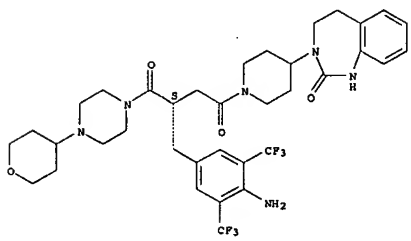


RN 910574-54-8 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3,5-bis(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

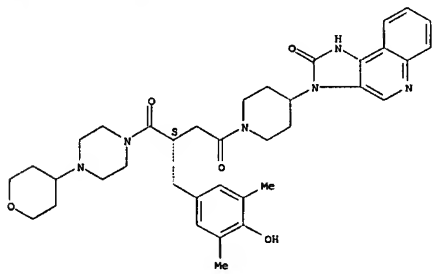






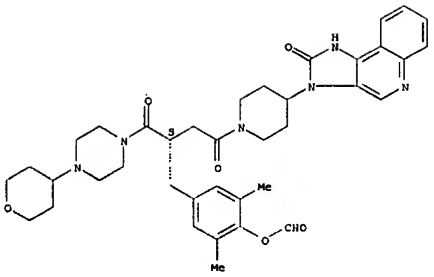
RN 910574-65-1 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



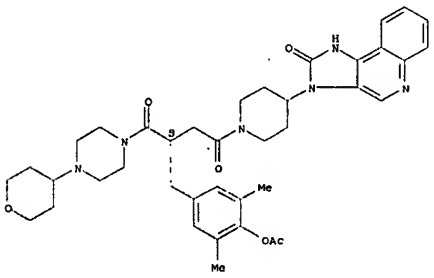
RN 910574-69-5 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910574-72-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

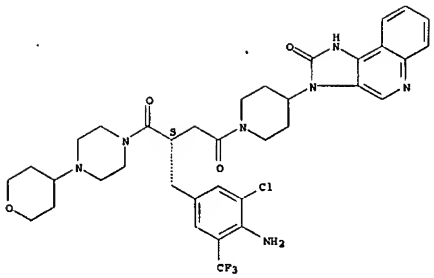


RN 910574-76-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3H-imidazo[4,5-c]quinolin-3-yl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

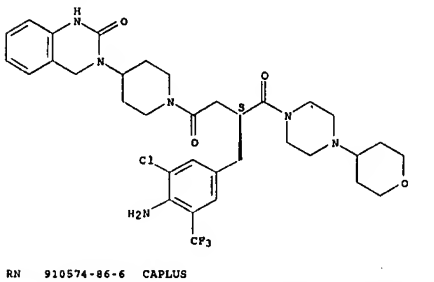






RN 910574-83-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

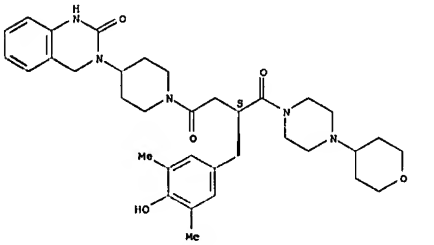


RN 910574-86-6 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

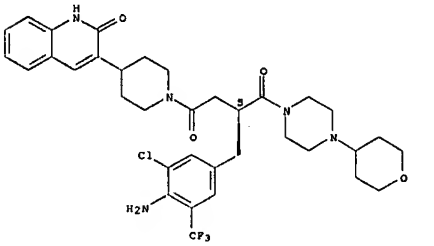






RN 910574-89-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-2-oxo-3-quinolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

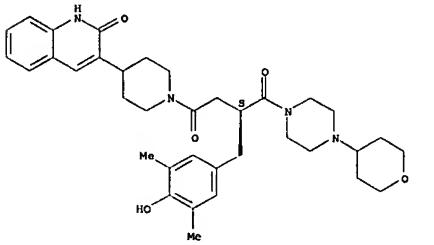


RN 910574-92-4 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-2-oxo-3-quinolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

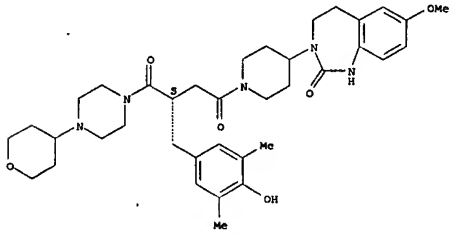






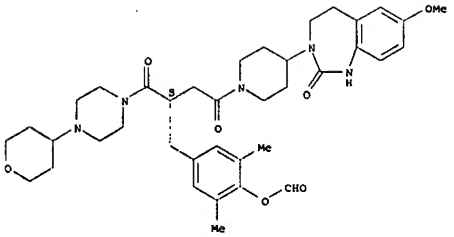
RN 910575-15-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



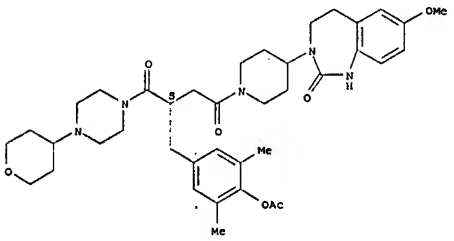
RN 910575-16-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 910575-17-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3,5-dimethylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-7-methoxy-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

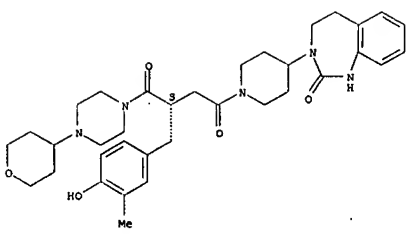


RN 910575-24-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-hydroxy-3-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

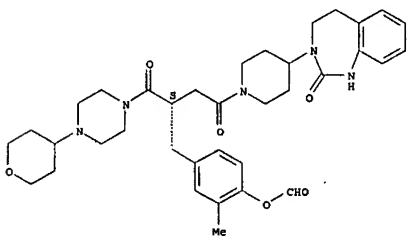






RN 910575-25-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(formyloxy)-3-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

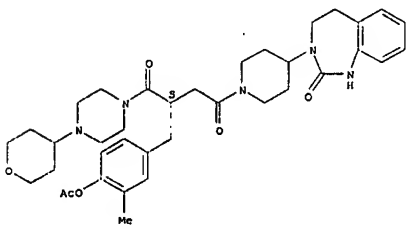


RN 910575-26-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-(acetyloxy)-3-methylphenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

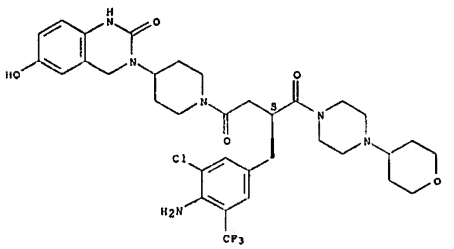






RN 910575-31-4 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,2-dihydro-6-hydroxy-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

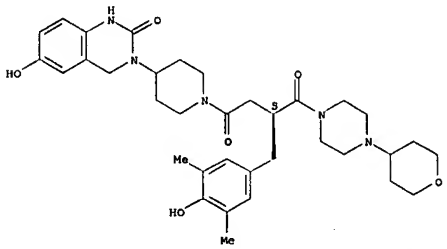


RN 910575-34-7 CAPLUS
CN Piperazine, 1-[(2S)-4-[4-(1,2-dihydro-6-hydroxy-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(tetrahydro-2H-pyran-4-yl)-. (9CI) (CA INDEX NAME)

Absolute stereochemistry.







REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:656692 CAPLUS
DOCUMENT NUMBER: 145:96491
TITLE: Use of CGRP antagonists in treatment and prevention of hot flushes in prostate cancer patients
INVENTOR(S): Rudolf, Klaus; Dooda, Henri; Mueller, Stephan Georg; Zamponi, Annette; Lustenberger, Philipp; Stenkamp, Dirk; Arndt, Kirsten; Schaenzle, Gerhard; Brickl, Rolf-Stefan
PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G.
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2006069754 | A1 | 20060706 | WO 2005-EP13974 | 20051223 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| DE 102004063755 | A1 | 20060720 | DE 2004-102004063755 | 20041229 |
| US 2006154921 | A1 | 20060713 | US 2005-301422 | 20051213 |
| PRIORITY APPLN. INFO.: | | | DE 2004-102004063755A | 20041229 |

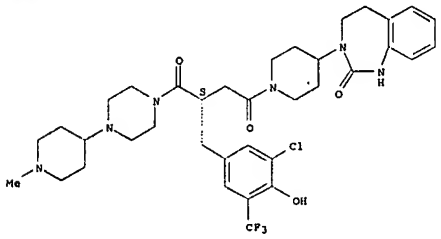
AB The invention discloses a method for treatment or prevention of hot flushes in men who underwent castration, e.g. due to androgen ablation treatment in prostate cancer therapy, comprising administration of an effective amount of a selected CGRP antagonist to the patient, as well as the use of the active compds. for the manufacture of a pharmaceutical composition intended to be used in this method.

IT 894071-73-9 894071-73-9D, salts
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CGRP antagonists for treatment and prevention of hot flushes in prostate cancer patients)

RN 894071-73-9 CAPLUS

CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



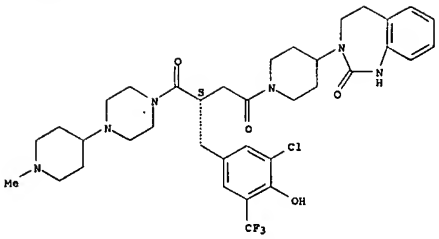
RN 894071-73-9 CAPLUS

CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.







REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:636811 CAPLUS
DOCUMENT NUMBER: 145:76714
TITLE: Use of selected CGRP antagonists for combating menopausal hot flushes
INVENTOR(S): Rudolf, Klaus; Doods, Henri; Mueller, Stephan Georg; Zamponi, Annette; Lustenberger, Philipp; Arndt, Kirsten; Schaenzle, Gerhard; Stenkamp, Dirk; Brickl, Rolf-Stefan
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2006142274 | A1 | 20060629 | US 2005-301446 | 20051213 |
| DE 102004063752 | A1 | 20060713 | DE 2004-102004063752 | 20041229 |
| WO 2006072415 | A1 | 20060713 | WO 2005-EP13972 | 20051223 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: DE 2004-102004063752A 20041229
AB The invention discloses the use of selected CGRP antagonists, the physiol. acceptable salts thereof or the hydrates or the hydrates of the salts





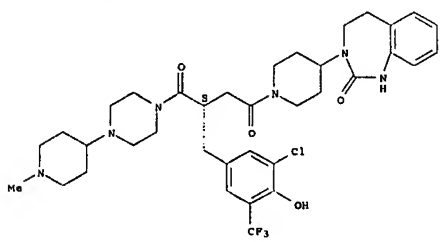
thereof for combating menopausal hot flushes. A variety of formations are included.

IT 894071-73-9 894071-73-9D, salts
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CGRP antagonists for combating menopausal hot flushes)

RN 894071-73-9 CAPLUS

CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

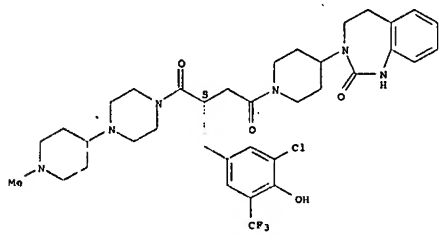
Absolute stereochemistry.



RN 894071-73-9 CAPLUS

CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.







L12 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:636805 CAPLUS
DOCUMENT NUMBER: 145:96481
TITLE: Use of selected CGRP antagonists in combination with other antimigraine drugs for the treatment of migraine
INVENTOR(S): Rudolf, Klaus; Doods, Henri; Mueller, Stephan Georg; Zamponi, Annette; Lustenberger, Philipp; Arndt, Kirsten; Schaenzle, Gerhard; Stenkamp, Dirk; Brickl, Rolf-Stefan
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2006142273 | A1 | 20060629 | US 2005-275169 | 20051216 |
| DE 102004063753 | A1 | 20060713 | DE 2004-102004063753 | 20041229 |
| WO 2006072413 | A1 | 20060713 | WO 2005-EP13964 | 20051223 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

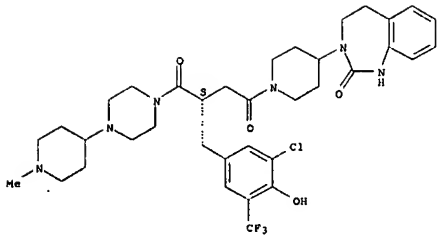
PRIORITY APPLN. INFO.: DE 2004-102004063753A 20041229
AB The invention discloses a process for the treatment or prevention of indications which are selected from among the group comprising headaches, migraine and cluster headaches, the process comprising the joint administration of a therapeutically effective amount of a selected CGRP antagonist (A), a physiol. acceptable salt thereof or a hydrate of the salt and a therapeutically effective amount of a second or third active anti-migraine medicament (B), particularly sumatriptan, zolmitriptan, or dihydroergotamine, or a physiol. acceptable salt thereof, as well as the corresponding pharmaceutical compns. and the preparation thereof. A variety of formulations are included.

IT 894071-73-9 894071-73-9D, salts 894761-34-3
894761-39-8 894761-42-3 894761-51-4
894762-03-9 894762-06-2
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CGRP antagonists in combination with other antimigraine drugs for treatment of migraine)

RN 894071-73-9 CAPLUS

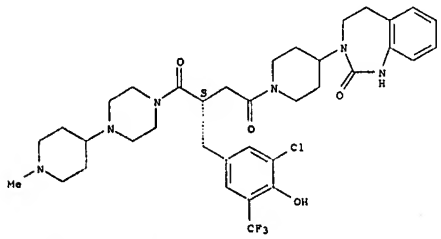
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 894071-73-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 894761-34-3 CAPLUS
CN 2H-1,2-Benzothiazine-3-carboxamide, 4-hydroxy-2-methyl-N-2-pyridinyl-, 1,1-dioxide, mixt. with 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)piperazine (9CI) (CA INDEX NAME)

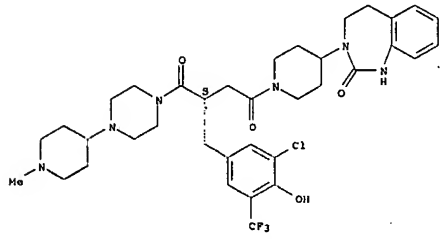
CM 1

CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4

Absolute stereochemistry.



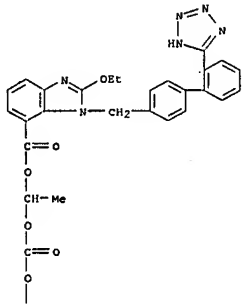




CM 2

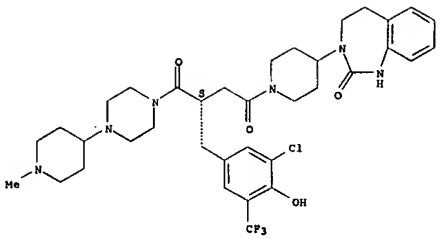
CRN 145040-37-5
CMF C33 H34 N6 O6

PAGE 1-A



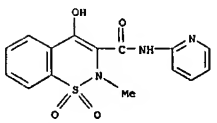






CM 2

CRN 36322-90-4
CMF C15 H13 N3 O4 S



RN 894761-39-8 CAPLUS
CN 1H-Benzimidazole-7-carboxylic acid, 2-ethoxy-1-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, 1-[[(cyclohexyloxy)carbonyl]oxy]ethyl ester, mixt. with 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4

Absolute stereochemistry.





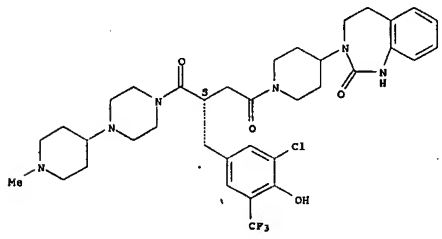
PAGE 2-A

RN 894761-42-3 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)-, mixt. with N,N-dimethyl-5-(1H-1,2,4-triazol-1-ylmethyl)-1H-indole-3-ethanamine (9CI) (CA INDEX NAME)

CM 1

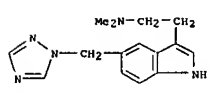
CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4

Absolute stereochemistry.



CM 2

CRN 144034-80-0
CMF C15 H19 N5



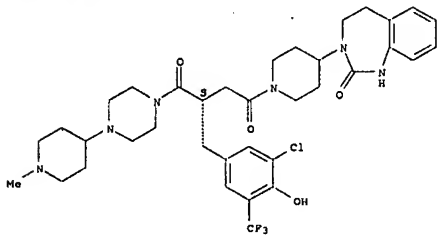
RN 894761-51-4 CAPLUS
CN L-Valine, N-(1-oxopentyl)-N-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-, mixt. with 1-[(2S)-2-[[3-chloro-4-hydroxy-5-

(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)piperazine (9CI) (CA INDEX NAME)

CM 1

CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4

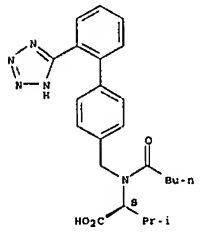
Absolute stereochemistry.



CM 2

CRN 137862-53-4
CMF C24 H29 N5 O3

Absolute stereochemistry.



RN 894762-03-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methy



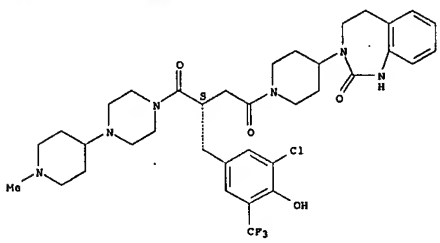


1]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-1-piperidinyl)-, mixt. with N-methyl-3-(1-methyl-4-piperidinyl)-1H-indole-5-ethanesulfonamide (9CI) (CA INDEX NAME)

CM 1

CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4

Absolute stereochemistry.



CM 2

CRN 121679-13-8
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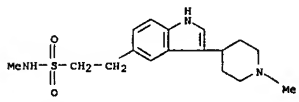


RN 894762-06-2 CAPLUS
CN Benzeneacetic acid, α-methyl-4-(2-methylpropyl)-, mixt. with 1-[(2S)-2-[[3-chloro-4-hydroxy-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)piperazine (9CI) (CA INDEX NAME)

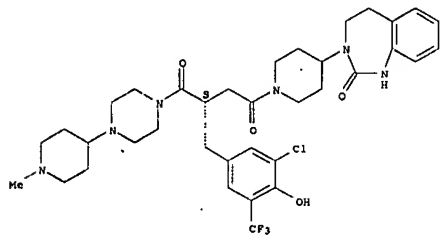
CM 1

CRN 894071-73-9
CMF C36 H46 Cl F3 N6 O4





Absolute stereochemistry.



CM 2

CRN 15687-27-1
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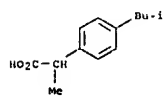

L12 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1004565 CAPLUS
DOCUMENT NUMBER: 143:306304
TITLE: Preparation isoindazoles and related compounds as cgrp antagonists
INVENTOR(S): Lustenberger, Philipp; Rudolf, Klaus; Mueller, Stephan Georg; Stenkamp, Dirk; Doods, Henri; Arndt, Kirsten; Schaenzle, Gerhard
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany; Boehringer Ingelheim Pharma GmbH & Co. KG
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2005084672 | A1 | 20050915 | WO 2005-EP2082 | 20050226 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,





CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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| DE 102004010254 | A1 | 20050922 | DE 2004-102004010254 | 20040303 |
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PRIORITY APPLN. INFO.:
DE 2004-102004010254A 20040303
DE 2004-102004028751A 20040615
WO 2005-EP2082 W 20050226

OTHER SOURCE(S): MARPAT 143:306304
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [A = N, CH; B = N, CH; D = H, Me; E = H, halo, Me, etc.; X = CH2, NH; R1 = (un)substituted 3-phenyl-2-pyrazolin-5-one, tetrahydro-2H-benzo-1,3-diazepin-2-one with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, coupling of carboxylic acid II and 1-methyl-4-piperidin-4-ylpiperazine afforded claimed isoindazole III in 34% yield. In cgrp antagonist assays, compds. I exhibited IC50 values equal to or < 10000 nM.

IT 864536-44-7P 864536-45-8P 864536-50-5P
864536-52-7P 864536-78-7P 864536-79-8P
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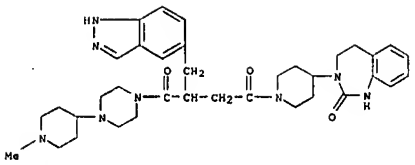
864537-75-7P 864537-76-8P 864537-81-5P
864537-82-6P 864537-87-1P 864537-88-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation isoindazoles and related compds. as cgrp antagonists medicaments)

RN 864536-44-7 CAPLUS
CN Piperazine, 1-[2-(1H-indazol-5-ylmethyl)-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



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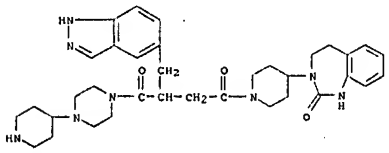

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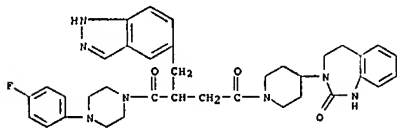

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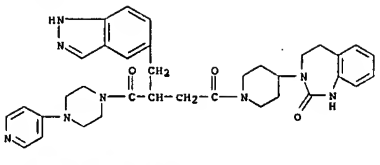

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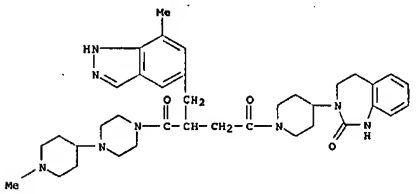

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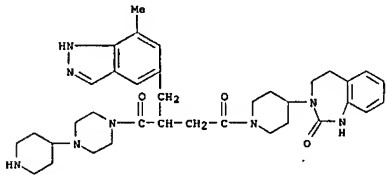

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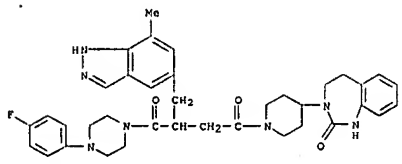
piperidinyl]butyl]- (9CI) (CA INDEX NAME)



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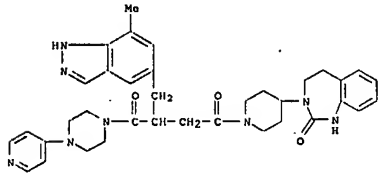
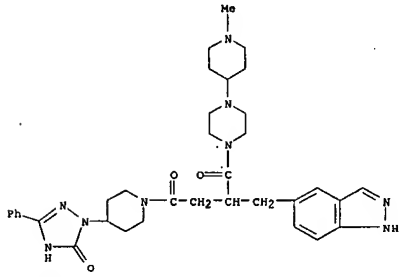


RN 864537-09-7 CAPLUS
CN Piperazine, 1-[4-[4-(2,5-dihydro-5-oxo-3-phenyl-1H-1,2,4-triazol-1-yl)-1-piperidinyl]-2-(1H-indazol-5-ylmethyl)-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)







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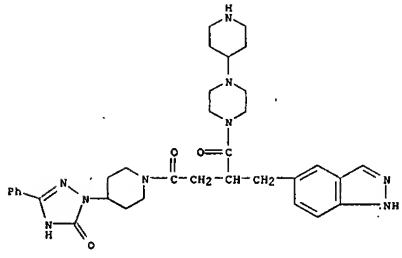

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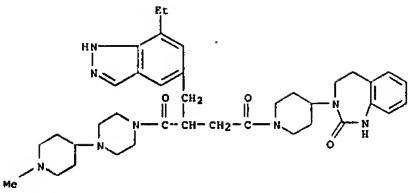
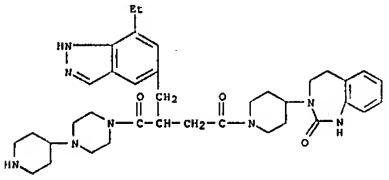
CN Piperazine, 1-[2-[(7-ethyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 864537-34-8 CAPLUS
CN Piperazine, 1-[2-[(7-ethyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



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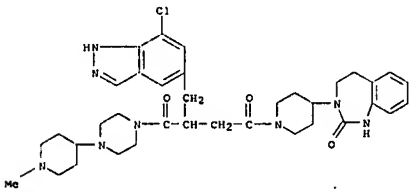





RN 864537-40-6 CAPLUS
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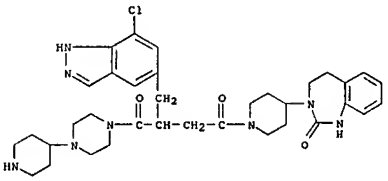

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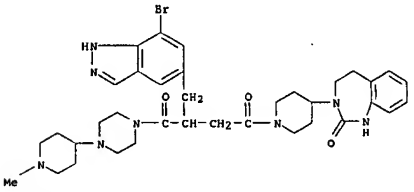
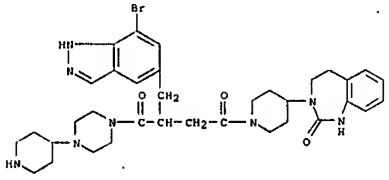
CN Piperazine, 1-[2-[(7-bromo-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



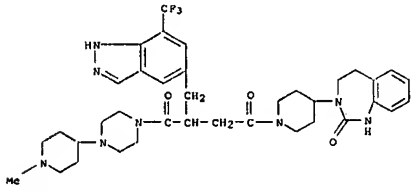
RN 864537-46-2 CAPLUS
CN Piperazine, 1-[2-[(7-bromo-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



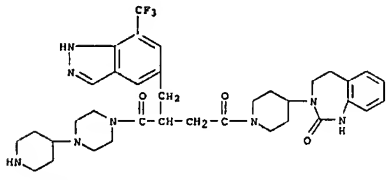




RN 864537-51-9 CAPLUS
CN Piperazine, 1-[1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]-2-[[7-(trifluoromethyl)-1H-indazol-5-yl]methyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 864537-52-0 CAPLUS
CN Piperazine, 1-[1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]-2-[[7-(trifluoromethyl)-1H-indazol-5-yl]methyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)

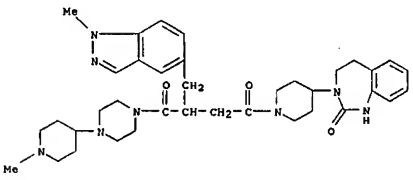


RN 864537-57-5 CAPLUS

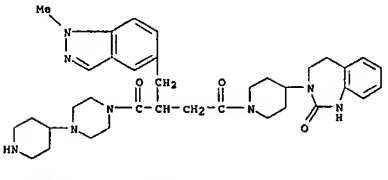




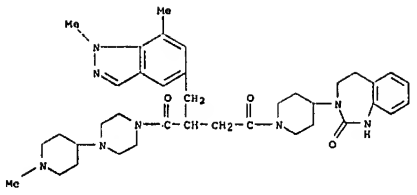
CN Piperazine, 1-[2-[(1-methyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



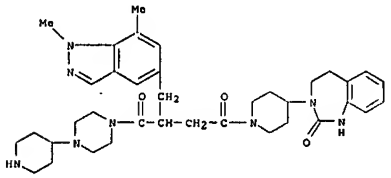
RN 864537-58-6 CAPLUS
CN Piperazine, 1-[2-[(1-methyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 864537-63-3 CAPLUS
CN Piperazine, 1-[2-[(1,7-dimethyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



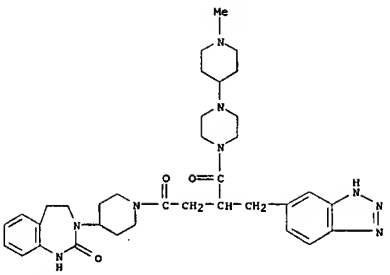
RN 864537-64-4 CAPLUS
CN Piperazine, 1-[2-[(1,7-dimethyl-1H-indazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



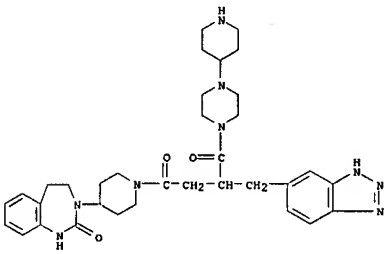
RN 864537-69-9 CAPLUS
CN Piperazine, 1-[2-(1H-benzotriazol-5-ylmethyl)-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)







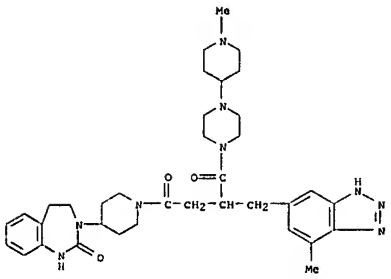
RN 864537-70-2 CAPLUS
CN Piperazine, 1-[2-(1H-benzotriazol-5-ylmethyl)-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



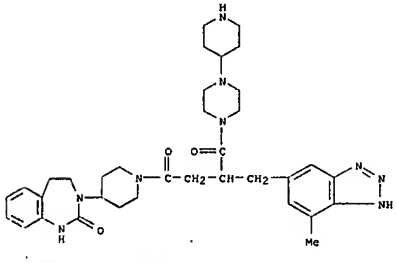
RN 864537-75-7 CAPLUS
CN Piperazine, 1-[2-[(7-methyl-1H-benzotriazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)







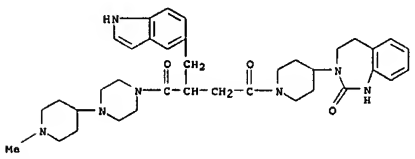
RN 864537-76-8 CAPLUS
CN Piperazine, 1-[2-[(7-methyl-1H-benzotriazol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



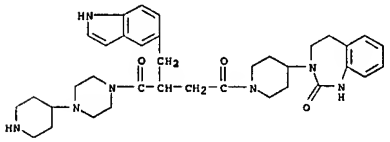
RN 864537-81-5 CAPLUS
CN Piperazine, 1-[2-(1H-indol-5-ylmethyl)-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



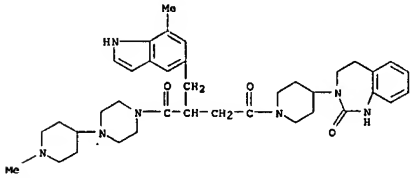




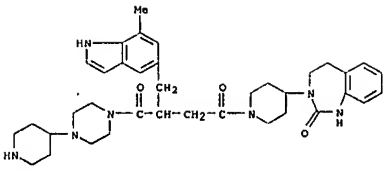
RN 864537-82-6 CAPLUS
CN Piperazine, 1-[2-(1H-indol-5-ylmethyl)-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 864537-87-1 CAPLUS
CN Piperazine, 1-[2-[(7-methyl-1H-indol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 864537-88-2 CAPLUS
CN Piperazine, 1-[2-[(7-methyl-1H-indol-5-yl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:638773 CAPLUS
DOCUMENT NUMBER: 143:133401
TITLE: Preparation of diazaheterocycles as calcitonin gene related peptide receptor antagonists
INVENTOR(S): Degnan, Andrew P.; Chen, Ling; Civiello, Rita; Dubowchik, Gene M.; Han, Xiaojun; Jiang, Xiang Jun J.; Macor, John E.; Tora, George
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl.. 385 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2005065779 | A1 | 20050721 | WO 2003-US38799 | 20031205 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2549330 | A1 | 20050721 | CA 2003-2549330 | 20031205 |
| AU 2003297694 | A1 | 20050812 | AU 2003-297694 | 20031205 |
| EP 1689493 | A1 | 20060816 | EP 2003-819270 | 20031205 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| BR 2003018637 | A | 20070213 | BR 2003-18637 | 20031205 |
| CN 1917921 | A | 20070221 | CN 2003-80111030 | 20031205 |
| IN 2006DN02822 | A | 20070803 | IN 2006-DN2822 | 20060518 |
| MX 2006PA06070 | A | 20060719 | MX 2006-PA6070 | 20060529 |
| NO 2006002648 | A | 20060802 | NO 2006-2648 | 20060608 |
| PRIORITY APPLN. INFO.: | | | EP 2003-819270 A | 20031205 |
| | | | WO 2003-US38799 W | 20031205 |
| OTHER SOURCE(S): | MARPAT 143:133401 | | | |





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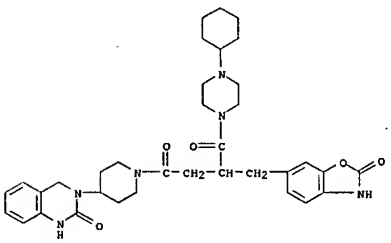
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Diazaheterocycles I [m, n = 0-2; V = (un)substituted NH2, OH; Q = (un)substituted alkyl, NH2, NHCO2H, NHCONH2; U = CH2, NH; D = O, NCN, alkylsulfonylimino; A = C, N, CH; E = (un)substituted heterocyclic; with provisos] were prepared for use as antagonists of calcitonin gene-related peptide receptors for treatment of neurogenic vasodilation, neurogenic inflammation, migraine and other headaches, thermal injury, circulatory shock, flushing associated with menopause, airway inflammatory diseases, such as asthma and chronic obstructive pulmonary disease (COPD). E.g., a multi-step synthesis of II which had IC50 for calcitonin gene related peptide receptor binding of ≤ 10 nM, was given. The pharmaceutical composition comprising the compound I is claimed.
IT 773886-69-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diazaheterocycles as calcitonin gene related peptide receptor antagonists)
RN 773886-69-4 CAPLUS
CN Piperazine, 1-cyclohexyl-4-[2-[(2,3-dihydro-2-oxo-6-benzoxazolyl)methyl]-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:470969 CAPLUS
DOCUMENT NUMBER: 143:26636
TITLE: Preparation of 4-[(Arylmethyl)aminomethyl]piperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR





related diseases
INVENTOR(S): Bosch, Michael; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: Fr. Demande, 31 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| FR 2862968 | A1 | 20050603 | FR 2003-14172 | 20031201 |
| FR 2862968 | B1 | 20060804 | | |
| WO 2005054229 | A1 | 20050616 | WO 2004-FR3066 | 20041130 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1694668 | A1 | 20060830 | EP 2004-805590 | 20041130 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU | | | | |
| JP 2007512384 | T | 20070517 | JP 2006-541974 | 20041130 |
| US 2007037819 | A1 | 20070215 | US 2006-420505 | 20060526 |
| PRIORITY APPLN. INFO.: | | | FR 2003-14172 A | 20031201 |
| | | | WO 2004-FR3066 W | 20041130 |
| OTHER SOURCE(S): | MARPAT 143:26636 | | | |

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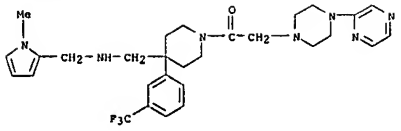
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein X = (CH2)n; n = 1-2; R1 = CF3; R2 = H, alkyl; R3 = (un)substituted pyrrolyl, 1,2,3-thiadiazolyl, pyrazinyl, etc.; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, II was prepared by reacting 1-[4-(aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone (preparation given) and 1-methyl-2-pyrrolecarboxaldehyde in THF in the presence of NaBH(OAc)3/AcOH. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.
IT 852936-29-9P, [(1-Methyl-1H-pyrrol-2-yl)methyl][[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-31-3P 852936-32-4P, N-Methyl-1-[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-





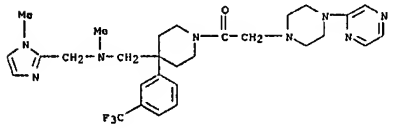
(trifluoromethyl)phenyl]piperidin-4-yl]-N-[(1,3-thiazol-2-yl)methyl]methanamine trihydrochloride 852936-33-5P, (2-Furylmethyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-34-6P, (3-Furylmethyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-35-7P, [(5-Methyl-2-furyl)methyl][[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-36-8P, [(4,5-Dimethyl-2-furyl)methyl](methyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine trihydrochloride 852936-37-9P, [(5-Chloro-2-furyl)methyl](methyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-38-0P, [[1-[[4-(Pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(2-thienyl)methyl]amine 852936-39-1P, [[1-[[4-(Pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(3-thienyl)methyl]amine 852936-40-4P, 1-Phenyl-N-[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]methanamine 852936-41-5P, [[1-[[4-(Pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(pyridin-2-yl)methyl]amine 852936-42-6P, N-Methyl-1-[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]-N-[(pyridin-2-yl)methyl]methanamine 852936-43-7P, N-Methyl-1-[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]-N-[(pyridin-3-yl)methyl]methanamine tetrahydrochloride 852936-44-8P, N-Methyl-1-[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]-N-[(pyridin-4-yl)methyl]methanamine tetrahydrochloride 852936-45-9P, N-Methyl-1-(pyrazin-2-yl)-N-[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]methanamine tetrahydrochloride 852936-46-0P, [(6-Methylpyridin-2-yl)methyl][[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-47-1P, [(3-Methyl-2-thienyl)methyl][[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine trihydrochloride 852936-48-2P 852936-49-3P, N-Methyl-1-[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]-N-[(pyrimidin-5-yl)methyl]methanamine 852936-50-6P, (1H-Imidazol-2-ylmethyl)(methyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852936-51-7P, (1H-Imidazol-5-ylmethyl)(methyl)[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine tetrahydrochloride 852936-52-8P, N-Methyl-1-(4-methyl-1H-imidazol-5-yl)-N-[[1-[[4-(pyrazin-2-yl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]pyridin-4-yl]methyl]methanamine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of 4-[(arylmethyl)aminomethyl]piperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)
RN 852936-29-9 CAPLUS
CN 4-Piperidinemethanamine, N-[(1-methyl-1H-pyrrol-2-yl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852936-31-3 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-[(1-methyl-1H-imidazol-2-yl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 852936-30-2
CMF C29 H37 F3 N8 O



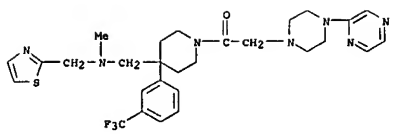
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 852936-32-4 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(2-thiazolylmethyl)-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

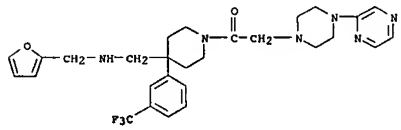




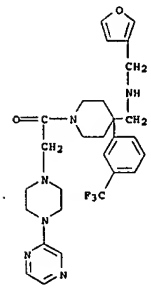


●3 HCl

RN 852936-33-5 CAPLUS
CN 4-Piperidinemethanamine, N-(2-furanylmethyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



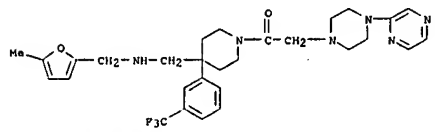
RN 852936-34-6 CAPLUS
CN 4-Piperidinemethanamine, N-(3-furanylmethyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



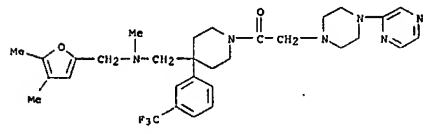




RN 852936-35-7 CAPLUS
CN 4-Piperidinemethanamine, N-[(5-methyl-2-furanyl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

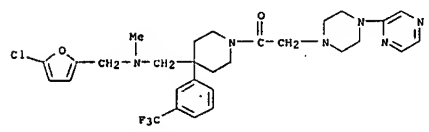


RN 852936-36-8 CAPLUS
CN 4-Piperidinemethanamine, N-[(4,5-dimethyl-2-furanyl)methyl]-N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

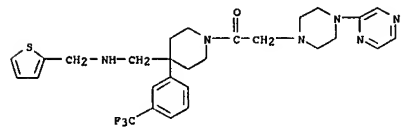
RN 852936-37-9 CAPLUS
CN 4-Piperidinemethanamine, N-[(5-chloro-2-furanyl)methyl]-N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



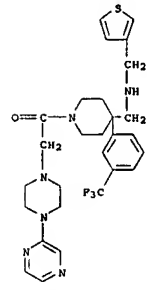
RN 852936-38-0 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(2-thienylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



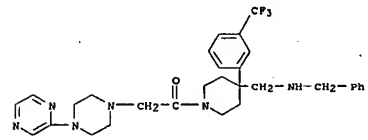




RN 852936-39-1 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(3-thienylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

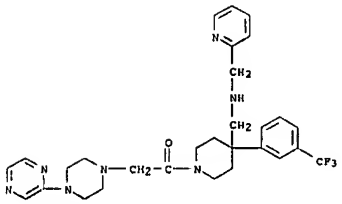


RN 852936-40-4 CAPLUS
CN 4-Piperidinemethanamine, N-(phenylmethyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

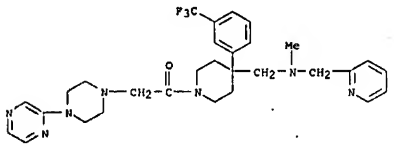


RN 852936-41-5 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(2-

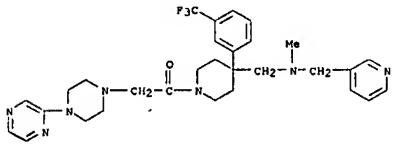
pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852936-42-6 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(2-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852936-43-7 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(3-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

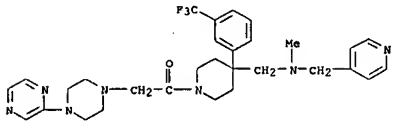


●4 HCl



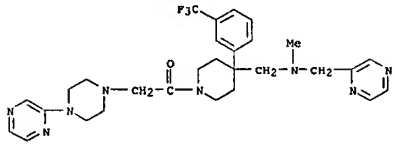


RN 852936-44-8 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-(4-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 852936-45-9 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-(pyrazinylmethyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)

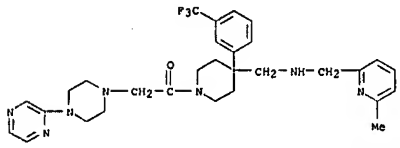


●4 HCl

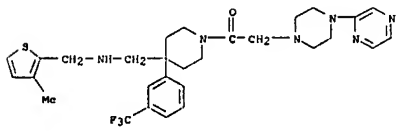
RN 852936-46-0 CAPLUS
CN 4-Piperidinemethanamine, N-[(6-methyl-2-pyridinyl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)





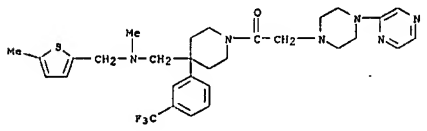


RN 852936-47-1 CAPLUS
CN 4-Piperidinemethanamine, N-[(3-methyl-2-thienyl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

RN 852936-48-2 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-[(5-methyl-2-thienyl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



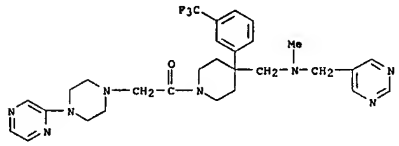
● HCl

RN 852936-49-3 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-N-

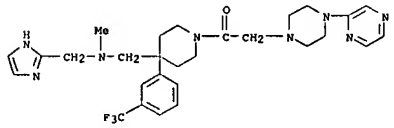




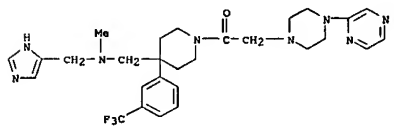
(5-pyrimidinylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852936-50-6 CAPLUS
CN 4-Piperidinemethanamine, N-(1H-imidazol-2-ylmethyl)-N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



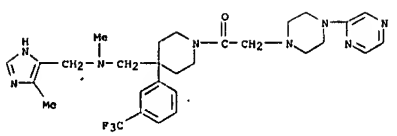
RN 852936-51-7 CAPLUS
CN 4-Piperidinemethanamine, N-(1H-imidazol-4-ylmethyl)-N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

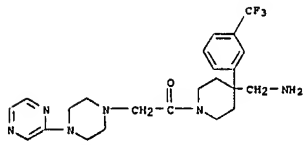
RN 852936-52-8 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-[(5-methyl-1H-imidazol-4-yl)methyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI)

(CA INDEX NAME)



IT 634461-23-7P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634464-08-7P, 1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634469-57-1P, tert-Butyl [[1-[2-[4-(2-pyrazinyl)-1-piperazinyl]ethanoyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]carbamate 852936-54-0P, tert-Butyl [[1-[2-[4-(2-pyrazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]carbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of 4-[(arylmethyl)aminomethyl]piperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

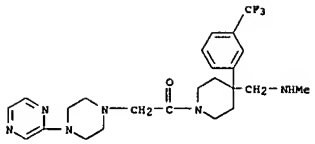
RN 634461-23-7 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



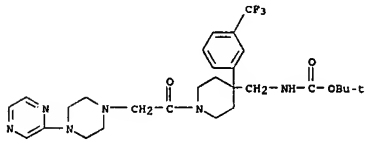
RN 634464-08-7 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



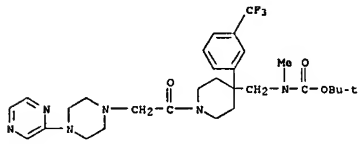




RN 634469-57-1 CAPLUS
CN Carbamic acid, [[1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 852936-54-0 CAPLUS
CN Carbamic acid, methyl[[1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:470968 CAPLUS
DOCUMENT NUMBER: 143:26635
TITLE: Preparation of (4-Phenylpiperazin-1-yl)acylpiperidine derivatives as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Dos Santos, Victor; Wagnon, Jean





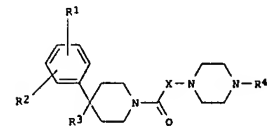
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: Fr. Demande, 49 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| FR 2862967 | A1 | 20050603 | FR 2003-14173 | 20031201 |
| FR 2862967 | B1 | 20060804 | | |
| WO 2005054227 | A1 | 20050616 | WO 2004-FR3067 | 20041130 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1699778 | A1 | 20060913 | EP 2004-805591 | 20041130 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS | | | | |
| JP 2007512385 | T | 20070517 | JP 2006-541975 | 20041130 |
| US 2007021609 | A1 | 20070125 | US 2006-420508 | 20060526 |
| PRIORITY APPLN. INFO.: | | | FR 2003-14173 A | 20031201 |
| | | | WO 2004-FR3067 W | 20041130 |

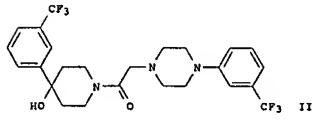
OTHER SOURCE(S): MARPAT 143:26635
GI







I



II

AB Title compds. I (wherein n = 1-2; R1 = halo, CF3, alkyl, alkoxy, OCF3; R2 = H, halo; R3 = H, OH and derivs., NH2 and derivs., etc.; R4 = (un)substituted Ph; their free bases, or acid addition salts, and their hydrates or solvates) were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, II·HCl was prepared by reacting 2-chloro-1-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) with 1-[3-(trifluoromethyl)phenyl]piperazine in the presence of KI/K2CO3/MeCN. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

IT 852937-00-9P, 4-[3-(Trifluoromethyl)phenyl]-1-[[4-[3-(trifluoromethyl)phenyl]piperazin-1-yl]acetyl]piperidin-4-ol 852937-01-0P, 1-[[4-(3,4-Dimethylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-02-1P, 1-[[4-(3,5-Dichlorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-03-2P, 1-[[4-(4-Methylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-04-3P, [[1-[(4-Phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine trihydrochloride 852937-05-4P, (2-Furylmethyl)[[1-[(4-phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852937-06-5P, [[1-[(4-Phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(2-thienyl)methyl]amine 852937-09-8P 852937-11-2P, [[1-[(4-Phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(pyridin-3-yl)methyl]amine dioxalate 852937-13-4P 852937-14-5P, N-Methyl-1-[1-[(4-phenylpiperazin-1-yl)acetyl]-4-[3-

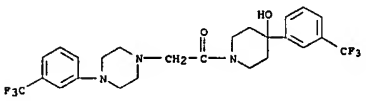
(trifluoromethyl)phenyl]piperidin-4-yl]methanamine dihydrochloride 852937-15-6P, N,N-Dimethyl-1-[1-[(4-phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methanamine 852937-16-7P, N-Methyl-N-[[1-[(4-phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]ethanamine dihydrochloride 852937-17-8P, [[1-[[4-(4-Fluorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine trihydrochloride 852937-18-9P, [[1-[[4-(3-Methoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine dihydrochloride 852937-19-0P, [[1-[[4-(3,4-Dichlorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852937-20-3P, [[1-[[4-(2,4-Dimethylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]methylamine dihydrochloride 852937-21-4P, [[1-[[4-(2,4-Dimethylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]dimethylamine dihydrochloride 852937-22-5P, [[1-[[4-(3,4-Dimethoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine trihydrochloride 852937-23-6P, [[1-[[4-(3,4-Dimethoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]dimethylamine trihydrochloride 852937-24-7P, N-Ethyl-N-[[1-[[4-(3-methoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]ethanamine dihydrochloride 852937-25-8P, 1-[2-[4-(Azetidin-1-ylcarbonyl)-4-[3-(trifluoromethyl)phenyl]piperidin-1-yl]-2-oxoethyl]-4-phenylpiperazine 852937-26-9P, [[1-[[4-(3,4-Dimethoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]methylamine 852937-27-0P, 1-[[4-(4-Chlorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-28-1P, 1-[[4-(3-Chlorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-29-2P, 1-[[4-(4-Methoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-30-5P, 1-[[4-(3-Methoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-31-6P, 1-[(4-Phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidine-4-carboxamide 852937-32-7P, 1-[[4-(2,4-Dimethylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidine-4-carboxamide 852937-33-8P, 1-[[4-(2,4-Dimethoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidine-4-carboxamide 852937-34-9P, 1-[[4-(2,4-Dichlorophenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidine-4-carboxamide 852937-35-0P, 1-[3-(4-Phenylpiperazin-1-yl)propanoyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-36-1P, 1-[3-[4-(4-Methylphenyl)piperazin-1-yl]propanoyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-37-2P, 1-[3-[4-(4-Fluorophenyl)piperazin-1-yl]propanoyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-38-3P, 1-[3-[4-(4-Methoxyphenyl)piperazin-1-yl]propanoyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-ol 852937-39-4P, [[1-[[4-(3,4-Dimethoxyphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl][(2-furyl)methyl]methylamine 852937-40-7P, 9-[3-Furylmethyl]-[[1-[(4-phenylpiperazin-1-yl)acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852937-41-8P, [[1-[[4-(2,3-Dimethylphenyl)piperazin-1-yl]acetyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]amine 852937-46-3P 852937-47-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)



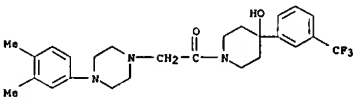


(drug candidate; preparation of phenylpiperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

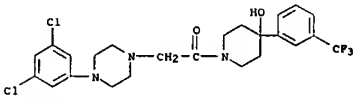
RN 852937-00-9 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



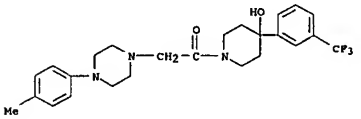
RN 852937-01-0 CAPLUS
CN 4-Piperidinol, 1-[[4-(3,4-dimethylphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-02-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(3,5-dichlorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



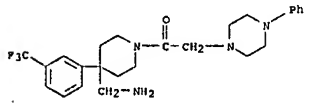
RN 852937-03-2 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-methylphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)





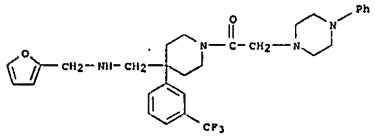


RN 852937-04-3 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

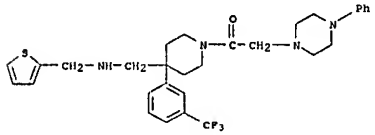


● 3 HCl

RN 852937-05-4 CAPLUS
CN 4-Piperidinemethanamine, N-(2-furanylmethyl)-1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-06-5 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-N-(2-thienylmethyl)-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



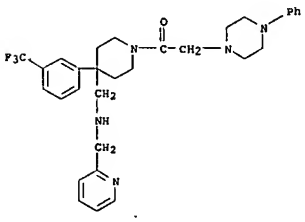
RN 852937-09-8 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-N-(2-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1





CRN 852937-08-7
CMF C31 H36 F3 N5 O



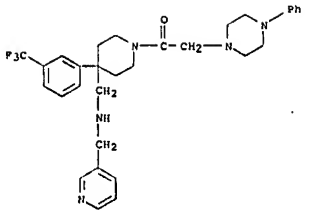
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 852937-11-2 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-N-(3-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 852937-10-1
CMF C31 H36 F3 N5 O



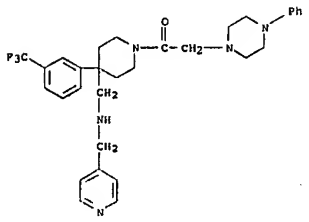
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 852937-13-4 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-N-(4-pyridinylmethyl)-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 852937-12-3
CMF C31 H36 F3 N5 O



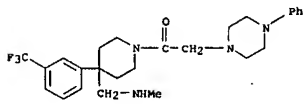




CM 2

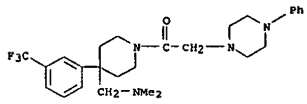
CRN 144-62-7
CMF C2 H2 O4

RN 852937-14-5 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

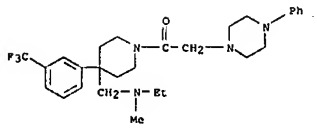
RN 852937-15-6 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-16-7 CAPLUS
CN 4-Piperidinemethanamine, N-ethyl-N-methyl-1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

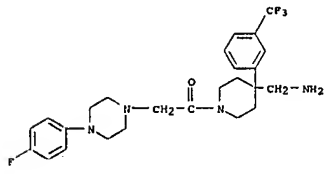






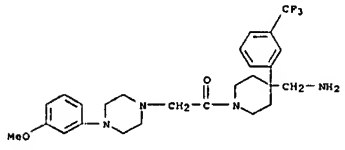
●2 HCl

RN 852937-17-8 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(4-fluorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

RN 852937-18-9 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3-methoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

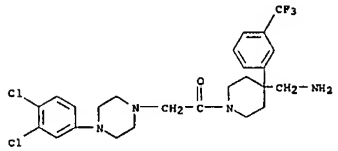


●2 HCl

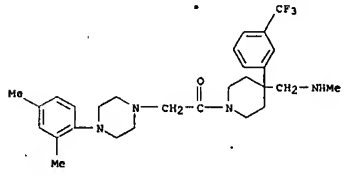




RN 852937-19-0 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3,4-dichlorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

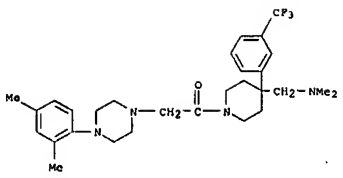


RN 852937-20-3 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2,4-dimethylphenyl)-1-piperazinyl]acetyl]-N-methyl-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



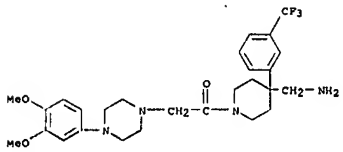
●2 HCl

RN 852937-21-4 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2,4-dimethylphenyl)-1-piperazinyl]acetyl]-N,N-dimethyl-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 852937-22-5 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3,4-dimethoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

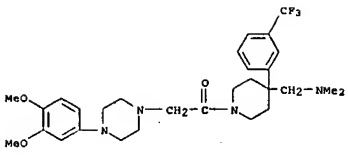


●3 HCl

RN 852937-23-6 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3,4-dimethoxyphenyl)-1-piperazinyl]acetyl]-N,N-dimethyl-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

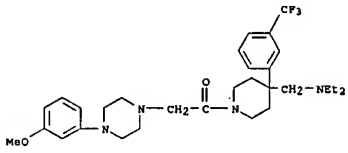






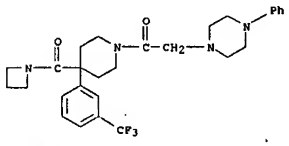
●3 HCl

RN 852937-24-7 CAPLUS
CN 4-Piperidinemethanamine, N,N-diethyl-1-[[4-(3-methoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 852937-25-8 CAPLUS
CN Piperidine, 4-(1-azetidinylcarbonyl)-1-[2-(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

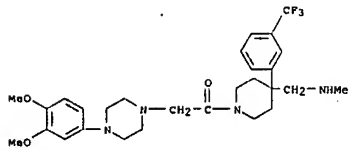


RN 852937-26-9 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3,4-dimethoxyphenyl)-1-piperazinyl]acetyl]-

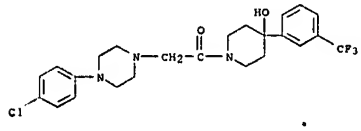




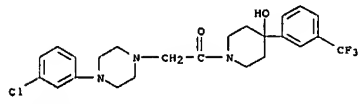
N-methyl-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-27-0 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-chlorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



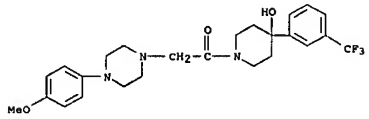
RN 852937-28-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(3-chlorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



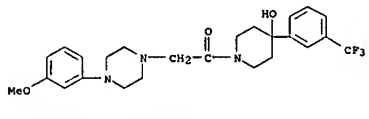
RN 852937-29-2 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-methoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



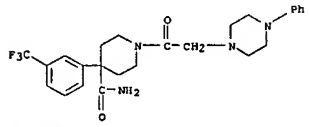




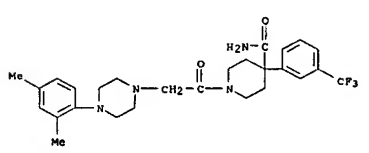
RN 852937-30-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(3-methoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



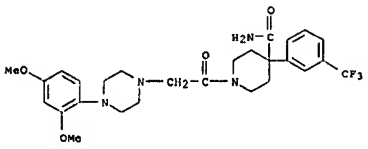
RN 852937-31-6 CAPLUS
CN 4-Piperidinecarboxamide, 1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



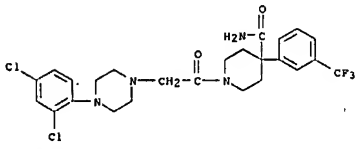
RN 852937-32-7 CAPLUS
CN 4-Piperidinecarboxamide, 1-[[4-(2,4-dimethylphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



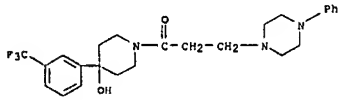
RN 852937-33-8 CAPLUS
CN 4-Piperidinecarboxamide, 1-[[4-(2,4-dimethoxyphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-34-9 CAPLUS
CN 4-Piperidinecarboxamide, 1-[[4-(2,4-dichlorophenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



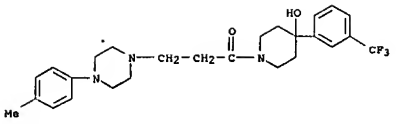
RN 852937-35-0 CAPLUS
CN 4-Piperidinol, 1-[1-oxo-3-(4-phenyl-1-piperazinyl)propyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



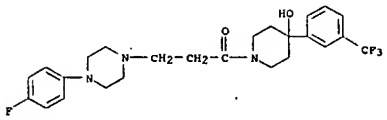
RN 852937-36-1 CAPLUS
CN 4-Piperidinol, 1-[3-[4-(4-methylphenyl)-1-piperazinyl]-1-oxopropyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



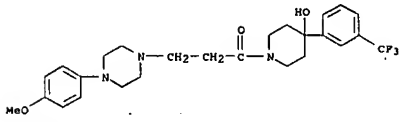




RN 852937-37-2 CAPLUS
CN 4-Piperidinol, 1-[3-[4-(4-fluorophenyl)-1-piperazinyl]-1-oxopropyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



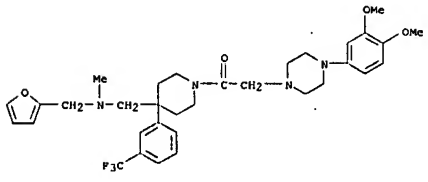
RN 852937-38-3 CAPLUS
CN 4-Piperidinol, 1-[3-[4-(4-methoxyphenyl)-1-piperazinyl]-1-oxopropyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 852937-39-4 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(3,4-dimethoxyphenyl)-1-piperazinyl]acetyl]-N-(2-furanylmethyl)-N-methyl-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

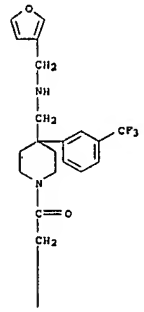




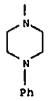


RN 852937-40-7 CAPLUS
CN 4-Piperidinemethanamine, N-(3-furanylmethyl)-1-[[4-phenyl-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



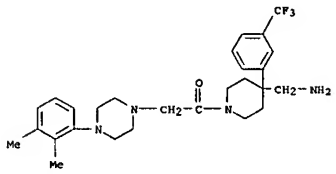
PAGE 2-A



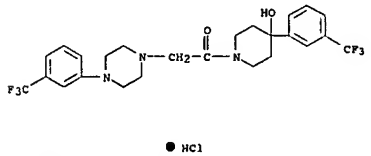




RN 852937-41-8 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2,3-dimethylphenyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

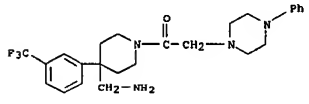


RN 852937-46-3 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]acetyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 852937-47-4 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

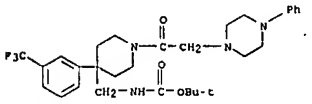


● HCl

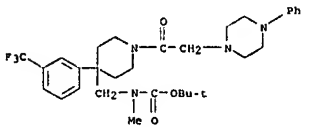
IT 852937-48-5P, tert-Butyl [[1-[2-(4-phenylpiperazin-1-yl)ethanoyl]-

4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]carbamate 852937-49-6P, tert-Butyl methyl[[1-[2-(4-phenylpiperazin-1-yl)ethanoyl]-4-[3-(trifluoromethyl)phenyl]piperidin-4-yl]methyl]carbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of phenylpiperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

RN 852937-48-5 CAPLUS
CN Carbamic acid, [[1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 852937-49-6 CAPLUS
CN Carbamic acid, methyl[[1-[(4-phenyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:857166 CAPLUS
DOCUMENT NUMBER: 141:332218
TITLE: Preparation of diazaheterocycles as calcitonin gene related peptide receptor antagonists
INVENTOR(S): Chaturvedula, Prasad V.; Chen, Ling; Civiello, Rita; Conway, Charles Mark; Degnan, Andrew P.; Dubowchik, Gene M.; Han, Xiaojun; Jiang, Xiang Jun; Karageorge, George N.; Luo, Guanglin; Macor, John E.; Poindexter, Graham; Tora, George; Vig, Shikha
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: U.S. Pat. Appl. Publ., 203 pp., Cont.-in-part of U.S. Ser. No. 445,523.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

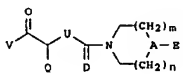




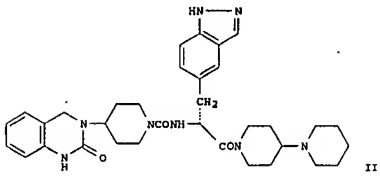
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| US 2004204397 | A1 | 20041014 | US 2003-729155 | | 20031205 |
| US 7220862 | B2 | 20070522 | | | |
| US 2004063735 | A1 | 20040401 | US 2003-445523 | | 20030527 |
| ZA 2004009654 | A | 20060726 | ZA 2004-9654 | | 20041129 |
| US 2007148093 | A1 | 20070628 | US 2006-641974 | | 20061219 |
| US 2007149502 | A1 | 20070628 | US 2007-620253 | | 20070105 |
| US 2007149503 | A1 | 20070628 | US 2007-620308 | | 20070105 |
| PRIORITY APPLN. INFO.: | | | US 2002-386138P | P | 20020605 |
| | | | US 2002-388617P | P | 20020613 |
| | | | US 2002-389870P | P | 20020619 |
| | | | US 2002-393200P | P | 20020701 |
| | | | US 2002-413534P | P | 20020925 |
| | | | US 2003-445523 | A2 | 20030527 |
| | | | US 2003-729155 | A3 | 20031205 |

OTHER SOURCE(S): MARPAT 141:332218
GI



I



II

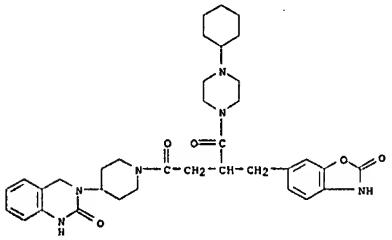
AB Diazaheterocycles I [m, n = 0-2; V = (un)substituted NH2, OH; Q = (un)substituted alkyl, NH2, NHCO2H, NHCONH2; U = CH2, NH; D = O, NCN, alkylsulfonylimino; A = C, N, CH; E = (un)substituted heterocyclic; with provisos] were prepared for use as antagonists of calcitonin gene-related peptide receptors for treatment of neurogenic vasodilation, neurogenic inflammation, migraine and other headaches, thermal injury, circulatory shock, flushing associated with menopause, airway inflammatory diseases, such as asthma and chronic obstructive pulmonary disease (COPD). Thus, the indazole II was prepared from 1H-indazole-5-carboxaldehyde and had IC50 for calcitonin gene related peptide receptor binding of ≤ 10 nM. The pharmaceutical composition comprising the compound I is claimed.
IT 773886-69-4P





RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diazaheterocycles as calcitonin gene related peptide receptor antagonists)

RN 773886-69-4 CAPLUS
CN Piperazine, 1-cyclohexyl-4-[2-[(2,3-dihydro-2-oxo-6-benzoxazolyl)methyl]-4-[4-(1,2-dihydro-2-oxo-3(4H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 119 THERE ARE 119 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:587914 CAPLUS
DOCUMENT NUMBER: 141:140319
TITLE: Preparation of amino acid dipiperidides as CGRP antagonists
INVENTOR(S): Bauer, Eckhart; Gerlach, Kai; Hurnaus, Rudolf; Mueller, Stephan; Rudolf, Klaus; Schindler, Marcus; Stenkamp, Dirk
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma GmbH & Co. KG, Germany
SOURCE: Ger. Offen., 98 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 10300973 | A1 | 20040722 | DE 2003-10300973 | 20030114 |
| AU 2004203916 | A1 | 20040729 | AU 2004-203916 | 20040109 |
| CA 2513132 | A1 | 20040729 | CA 2004-2513132 | 20040109 |
| WO 2004063171 | A1 | 20040729 | WO 2004-EP87 | 20040109 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, | | | | |





GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA

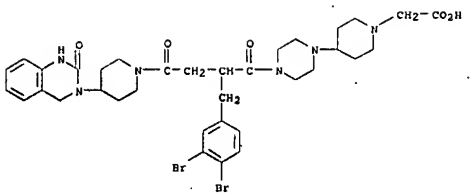
| | | | | |
|---|---|---|---|---|
| EP 1587795 | A1 | 20051026 | EP 2004-700987 | 20040109 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| BR 2004006762 | A | 20051220 | BR 2004-6762 | 20040109 |
| CN 1738805 | A | 20060222 | CN 2004-80002209 | 20040109 |
| JP 2006515875 | T | 20060608 | JP 2006-500537 | 20040109 |
| US 2004192729 | A1 | 20040930 | US 2004-755593 | 20040112 |
| MX 2005PA06214 | A | 20050819 | MX 2005-PA6214 | 20050610 |
| IN 2005DN03075 | A | 20070302 | IN 2005-DN3075 | 20050711 |
| NO 2005003794 | A | 20050810 | NO 2005-3794 | 20050810 |
| PRIORITY APPLN. INFO.: | | | WO 2000-EP7613 W | 20000805 |
| | | | DE 2003-10300973 A | 20030114 |
| | | | US 2003-443492P P | 20030129 |
| | | | WO 2004-EP87 W | 20040109 |

OTHER SOURCE(S): MARPAT 141:140319
GI

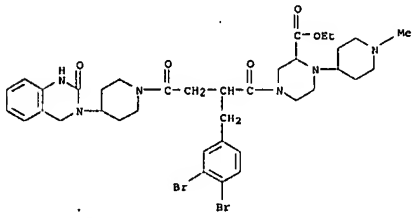
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R = (un)substituted diaza-, triaza-, S,S-dioxidothiadiaza-heterocycle; Ar = (un)substituted aryl, heteroaryl; Y = CH2, NH; Y1 = (un)substituted CH, N; R1 = (un)substituted N heterocycle; R2, R3 = H, carboxylic ester] were prepared for use as CGRP antagonists in the production and purification of antibodies and as marked compds. in RIA and ELISA assays and as diagnostic or analytic additives in neurotransmitter research (no data). Thus, the piperidide II was prepared from the amino acid and piperidine fragments in a multi-step synthesis.
IT 726184-27-6P 726184-36-7P 726184-38-9P
726184-39-0P 726184-41-4P 726184-42-5P
726184-44-7P 726184-45-8P 726184-46-9P
726184-47-0P 726184-49-2P 726184-51-6P
726184-52-7P 726184-53-8P 726184-54-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid dipiperidides as CGRP antagonists)

RN 726184-27-6 CAPLUS
CN 1-Piperidineacetic acid, 4-[4-[2-[(3,4-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-piperazinyl]- (9CI) (CA INDEX NAME)



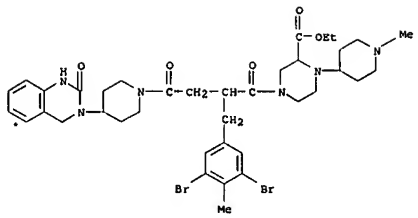
RN 726184-36-7 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(3,4-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



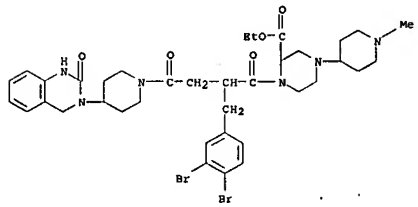
RN 726184-38-9 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(3,5-dibromo-4-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)







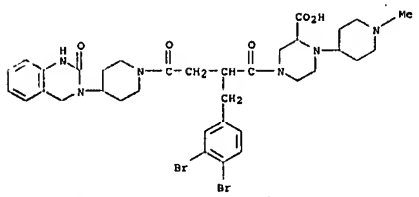
RN 726184-39-0 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(3,4-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



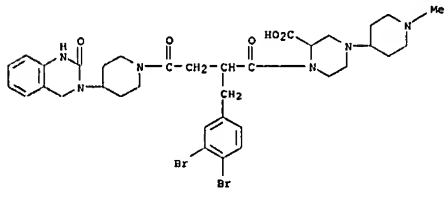
RN 726184-41-4 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(3,4-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



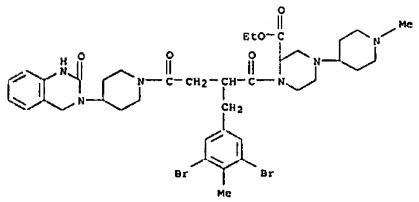




RN 726184-42-5 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(3,4-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



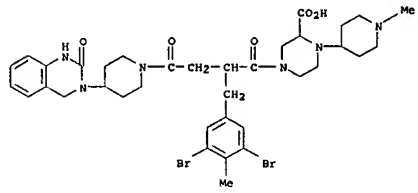
RN 726184-44-7 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(3,5-dibromo-4-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



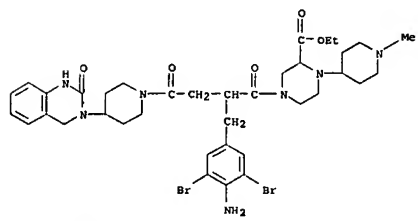




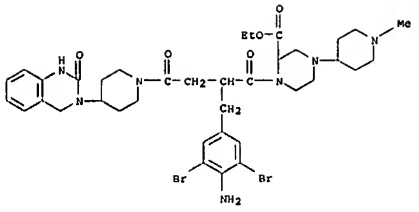
RN 726184-45-8 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(3,5-dibromo-4-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



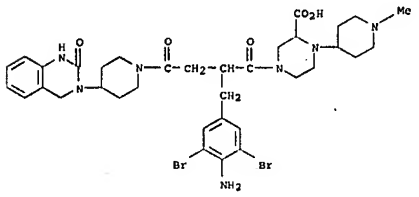
RN 726184-46-9 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(4-amino-3,5-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



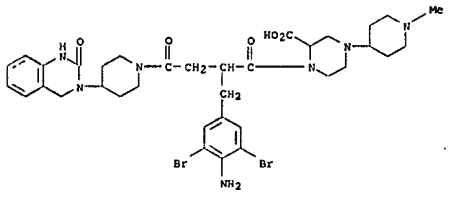
RN 726184-47-0 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(4-amino-3,5-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 726184-49-2 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(4-amino-3,5-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



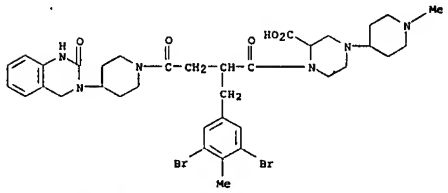
RN 726184-51-6 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(4-amino-3,5-dibromophenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



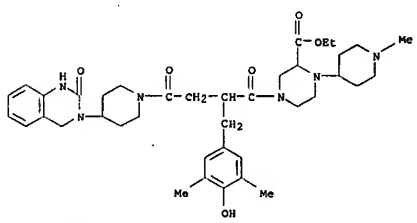




RN 726184-52-7 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(3,5-dibromo-4-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



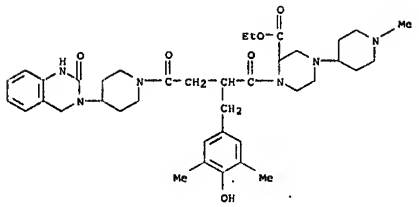
RN 726184-53-8 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 726184-54-9 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-2-[(4-hydroxy-3,5-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)







L12 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:370923 CAPLUS
DOCUMENT NUMBER: 140:391302
TITLE: Preparation of benzo-1,3-diazepin-2-ones and related compounds as CGRP receptor antagonists for the treatment of migraine headaches
INVENTOR(S): Rudolf, Klaus; Mueller, Stephan Georg; Stenkamp, Dirk; Lustenberger, Philipp; Dreyer, Alexander; Bauer, Eckhart; Schindler, Marcus; Arndt, Kirsten; Doods, Henri
PATENT ASSIGNEE(S): Boehringer Ingelheim, Germany
SOURCE: PCT Int. Appl., 254 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004037811 | A1 | 20040506 | WO 2003-EP11763 | 20031023 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10250082 | A1 | 20040513 | DE 2002-10250082 | 20021025 |
| US 2004132716 | A1 | 20040708 | US 2003-685921 | 20031015 |
| CA 2503462 | A1 | 20040506 | CA 2003-2503462 | 20031023 |
| AU 2003276157 | A1 | 20040513 | AU 2003-276157 | 20031023 |
| EP 1558601 | A1 | 20050803 | EP 2003-809318 | 20031023 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| BR 2003015642 | A | 20050830 | BR 2003-15642 | 20031023 |
| CN 1708492 | A | 20051214 | CN 2003-80101980 | 20031023 |
| JP 2006505573 | T | 20060216 | JP 2004-545964 | 20031023 |





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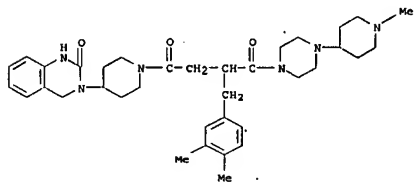
|---|---|---|---|---|
| NZ 540006 | A | 20070531 | NZ 2003-540006 | 20031023 |
| ZA 2005002247 | A | 20050919 | ZA 2005-2247 | 20050317 |
| MX 2005PA04188 | A | 20051005 | MX 2005-PA4188 | 20050420 |
| IN 2005DN01641 | A | 20070119 | IN 2005-DN1641 | 20050421 |
| NO 2005002493 | A | 20050524 | NO 2005-2493 | 20050524 |
| IN 2006DN05460 | A | 20070803 | IN 2006-DN5460 | 20060920 |
| PRIORITY APPLN. INFO.: | | | DE 2002-10250082 A | 20021025 |
| | | | US 2002-426167P P | 20021114 |
| | | | WO 2003-EP11763 W | 20031023 |
| | | | DE 2004-102004015723A | 20040329 |

OTHER SOURCE(S): MARPAT 140:391302
GI

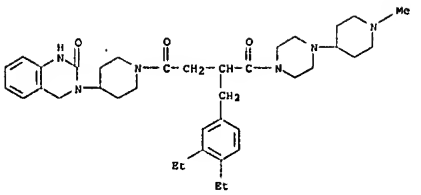
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [A = O, S, phenylsulfonylimino, etc.; X = O, S, substituted imino, etc.; Y, Z = alkyl, difluoromethyl, trifluoromethyl, etc.; R1 = 5-7 membered aza, diaza, triaza, etc. heterocycle; R2 = H, phenylmethyl, alkyl, etc.; R3 = H, Ph, pyridinyl, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, benzo-1,3-diazepin-2-one II was prepared from 1-(3,4-diethylphenyl)ethanone in 8-steps. In human CGRP receptor binding affinity assays, compds. I exhibited IC50 values < 10000 nM. Compds. I are claimed useful for the treatment of migraine headaches.
IT 686297-30-3P 686297-39-2P 686297-59-6P
686297-60-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzo-1,3-diazepin-2-ones and related compds. as CGRP receptor antagonists for the treatment of migraine headaches)
RN 686297-30-3 CAPLUS
CN Piperazine, 1-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-2-[(3,4-dimethylphenyl)methyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



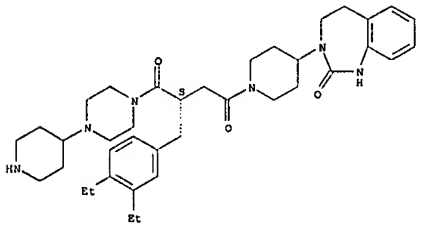
RN 686297-39-2 CAPLUS
CN Piperazine, 1-[2-[(3,4-diethylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-

(9CI) (CA INDEX NAME)



RN 686297-59-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,4-diethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

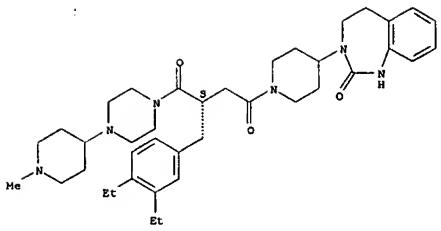


RN 686297-60-9 CAPLUS
CN Piperazine, 1-[(2S)-2-[(3,4-diethylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.







REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:370922 CAPLUS
DOCUMENT NUMBER: 140:391301
TITLE: Preparation of benzo-1,3-diazepin-2-ones and related compounds as CGRP receptor antagonists for the treatment of migraine headaches
INVENTOR(S): Rudolf, Klaus; Mueller, Stephan Georg; Stenkamp, Dirk; Lustenberger, Philipp; Dreyer, Alexander; Bauer, Eckhart; Schindler, Marcus; Kirsten, Arndt; Doods, Henri
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G., Germany
SOURCE: PCT Int. Appl., 315 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004037810 | A1 | 20040506 | WO 2003-EP11762 | 20031023 |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10250080 | A1 | 20040513 | DE 2002-10250080 | 20021025 |
| US 2006079504 | A1 | 20060413 | US 2003-687262 | 20031016 |
| CA 2503455 | A1 | 20040506 | CA 2003-2503455 | 20031023 |
| AU 2003276156 | A1 | 20040513 | AU 2003-276156 | 20031023 |
| EP 1558600 | A1 | 20050803 | EP 2003-809317 | 20031023 |





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| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | | | | | | | | | | | |
| | BR 2003015665 | A | 20050830 | BR 2003-15665 | | | | | | | | | | | 20031023 |
| | CN 1708493 | A | 20051214 | CN 2003-80102004 | | | | | | | | | | | 20031023 |
| | JP 2006516244 | T | 20060629 | JP 2004-545963 | | | | | | | | | | | 20031023 |
| * | IN 2005DN01640 | A | 20070323 | IN 2005-DN1640 | | | | | | | | | | | 20050421 |
| | MX 2005PA04375 | A | 20050705 | MX 2005-PA4375 | | | | | | | | | | | 20050425 |
| | NO 2005002496 | A | 20050624 | NO 2005-2496 | | | | | | | | | | | 20050524 |
| PRIORITY APPLN. INFO.: | | | | DE 2002-10250080 | | | | | | | | | | A | 20021025 |
| | | | | US 2002-426168P | | | | | | | | | | P | 20021114 |
| | | | | WO 2003-EP11762 | | | | | | | | | | W | 20031023 |

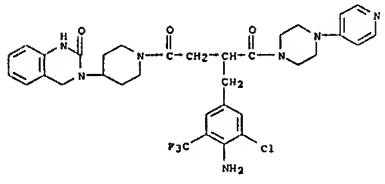
OTHER SOURCE(S): MARPAT 140:391301
01

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I (A = O, S, phenylsulfonylimino, etc.; X = O, S, substituted imino, etc.; U = alkyl, alkenyl, alkynyl, etc.; V = Cl, Br, amino, etc.; W = H, halo, difluoromethyl, etc.; R1 = 5-7 membered aza, diaza, triaza, etc. heterocycle; R2 = H, phenylmethyl, alkyl, etc.; R3 = H, Ph, pyridinyl, etc.) and their pharmaceutically acceptable salts and formulations were prepared For example, benzo-1,3-diazepin-2-one II was prepared from 4-amino-3-chloro-5-trifluoromethylbenzoic acid in 9-steps. In human CGRP receptor binding affinity assays, compds. I exhibited IC50 values < 10000 nM. Compds. I are claimed useful for the treatment of migraine headaches.

IT 688018-15-7P 688018-35-1P 688018-39-5P
688018-63-5P 688018-65-7P 688018-98-6P
688019-15-0P 688019-23-0P 688019-24-1P
688019-47-8P 688019-64-9P 688019-67-2P
688019-70-7P 688019-76-3P 688019-79-6P
688019-86-5P 688019-88-7P 688044-92-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzo-1,3-diazepin-2-ones and related compds. as CGRP receptor antagonists for the treatment of migraine headaches)

RN 688018-15-7 CAPLUS
CN Piperazine, 1-[2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)

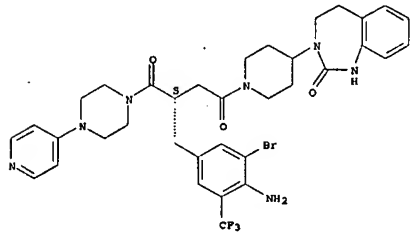






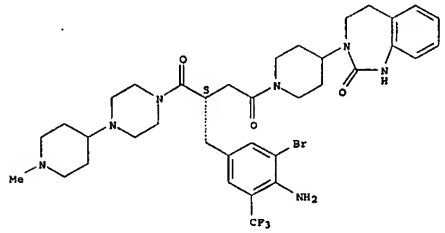
RN 688018-35-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-bromo-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



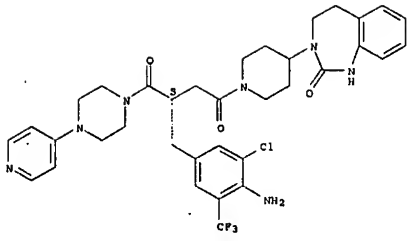
RN 688018-39-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-bromo-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



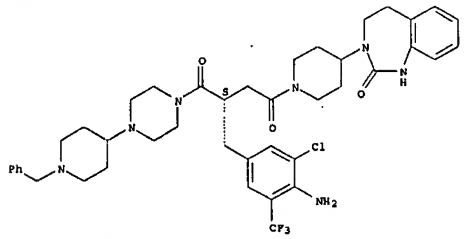
RN 688018-63-5 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 688018-65-7 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

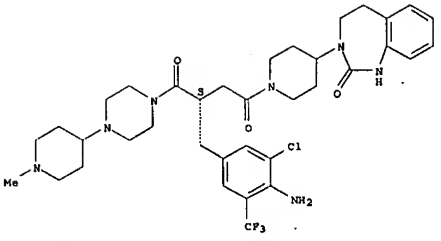


RN 688018-98-6 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

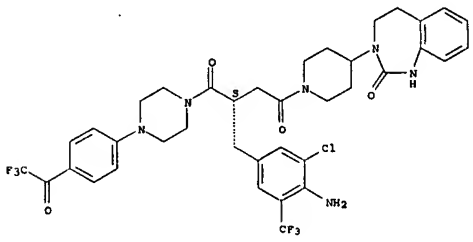






RN 688019-15-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-[4-(trifluoroacetyl)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

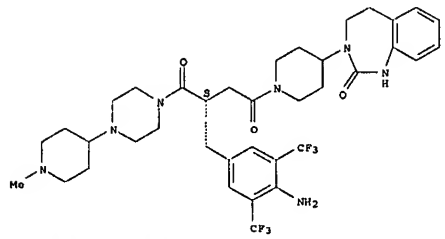


RN 688019-23-0 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3,5-bis(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

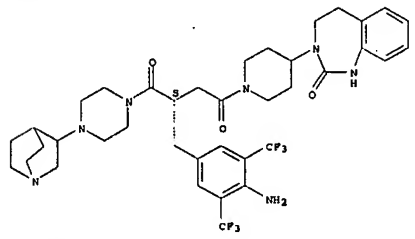






RN 688019-24-1 CAPLUS
CN Piperazine, 1-[(2S)-2-[[4-amino-3,5-bis(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-azabicyclo[2.2.2]oct-3-yl)- (9CI) (CA INDEX NAME)

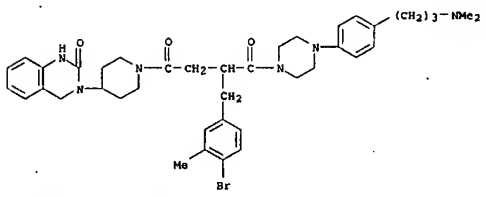
Absolute stereochemistry.



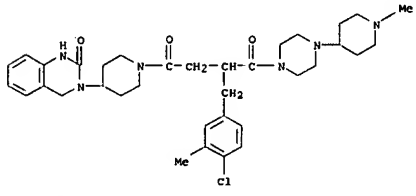
RN 688019-47-8 CAPLUS
CN Piperazine, 1-[2-[(4-bromo-3-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-[4-[3-(dimethylamino)propyl]phenyl]- (9CI) (CA INDEX NAME)



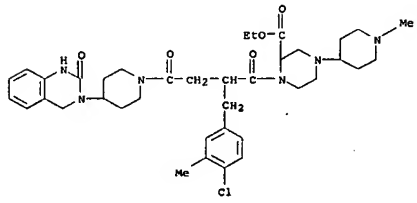




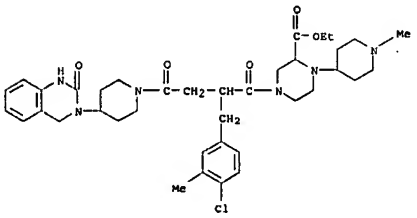
RN 688019-64-9 CAPLUS
CN Piperazine, 1-[2-[(4-chloro-3-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



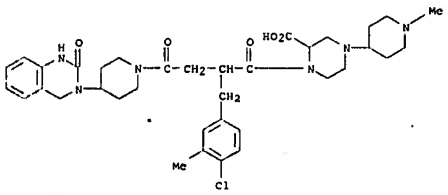
RN 688019-67-2 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(4-chloro-3-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 688019-70-7 CAPLUS
CN 2-Piperazinecarboxylic acid, 4-[2-[(4-chloro-3-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-1-(1-methyl-4-piperidinyl)-, ethyl ester (9CI) (CA INDEX NAME)



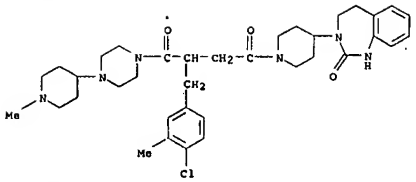
RN 688019-76-3 CAPLUS
CN 2-Piperazinecarboxylic acid, 1-[2-[(4-chloro-3-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



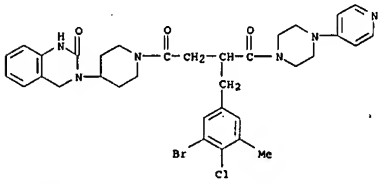
RN 688019-79-6 CAPLUS
CN Piperazine, 1-[2-[(4-chloro-3-methylphenyl)methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



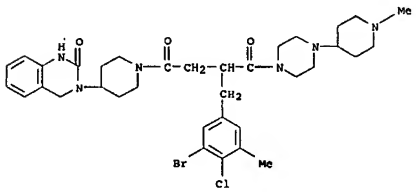




RN 688019-86-5 CAPLUS
CN Piperazine, 1-[2-[(3-bromo-4-chloro-5-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 688019-88-7 CAPLUS
CN Piperazine, 1-[2-[(3-bromo-4-chloro-5-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



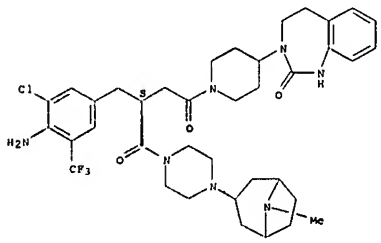
RN 688044-92-0 CAPLUS





CN Piperazine, 1-[(2S)-2-[[4-amino-3-chloro-5-(trifluoromethyl)phenyl]methyl]-1,4-dioxo-4-[4-(1,2,4,5-tetrahydro-2-oxo-3H-1,3-benzodiazepin-3-yl)-1-piperidinyl]butyl]-4-(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:182864 CAPLUS
DOCUMENT NUMBER: 140:217651
TITLE: Preparation of piperidinylpyridazinones as inhibitors of phosphodiesterase PDE4 or PDE3/4 inhibitors.
INVENTOR(S): Hatzelmann, Armin; Barsig, Johannes; Marx, Degenhard; Kley, Hans-Peter; Christiaans, Johannes A. M.; Menge, Wiro M. P. B.; Sterk, Geert Jan
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2004018451 | A1 | 20040304 | WO 2003-EP8677 | 20030806 |
| WO 2004018451 | A8 | 20040506 | | |
| W: AE, AL, AU, BA, BR, CA, CN, CO, DZ, EC, GE, HR, ID, IL, IN, IS, JP, KR, LT, LV, MA, MK, MX, NO, NZ, PH, PL, SG, TN, UA, US, VN, YU, ZA, ZW | | | | |
| RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR | | | | |
| CA 2494650 | A1 | 20040304 | CA 2003-2494650 | 20030806 |
| AU 2003251693 | A1 | 20040311 | AU 2003-251693 | 20030806 |
| EP 1556369 | A1 | 20050727 | EP 2003-792259 | 20030806 |

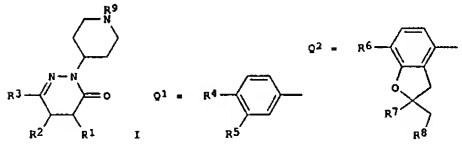




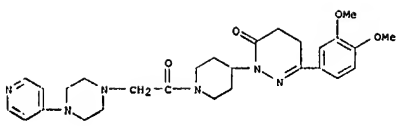
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

| | | | | |
|---|---|---|---|---|
| JP 2005538138 | T | 20051215 | JP 2004-530088 | 20030806 |
| US 2006167001 | A1 | 20060727 | US 2005-523112 | 20050203 |
| PRIORITY APPLN. INFO.: | | | EP 2002-17976 A | 20020810 |
| | | | WO 2003-EP8677 W | 20030806 |

OTHER SOURCE(S): MARPAT 140:217651
GI

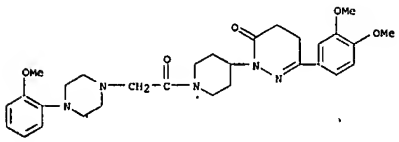


AB Title compds. [I; R1, R2 = H, alkyl; R3 = Q1, Q2; R4 = (fluoro)alkoxy; R5, R6 = cycloalkoxy, cycloalkylmethoxy, (fluoro)alkoxy; R7 = alkyl; R8 = H, alkyl; R7R8 = atoms to form a 5-7 membered ring optionally interrupted by O, S; R9 = alkyl, SO2R10, COR13, aryl, etc.; R10 = alkyl, 5-dimethylaminonaphthalen-1-yl, thienyl, NR16R17, (substituted) Ph, etc.; R13 = alkyl, carboxyalkyl, Ph, pyridyl, NR16R17, etc.; R16 = H, alkyl, cycloalkyl, cycloalkylmethyl, (substituted) Ph; R17 = alkyl, cycloalkyl, cycloalkylmethyl, (substituted) Ph; NR16R17 = 4-morpholinyl, 1-pyrrolidinyl, 1-piperidinyl, 1-hexahydroazepinyl, (substituted) piperazinyl], were prepared Thus, piperidin-4-ylhydrazine dihydrochloride (preparation given), 4-(3,4-dimethoxyphenyl)-3-methyl-4-oxobutyric acid, and Et3N were refluxed 18 h in PrOH to give 6-(3,4-dimethoxyphenyl)-5-methyl-2-piperidin-4-yl-4,5-dihydro-2H-pyridazin-3-one hydrochloride. I inhibited PDE4 with -log IC50 = 7.17-8.39.
IT 666750-84-1P 666750-85-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperidinylpyridazinones as phosphodiesterase PDE4 or PDE3/4 inhibitors)
RN 666750-84-1 CAPLUS
CN Piperidine, 4-[3-(3,4-dimethoxyphenyl)-5,6-dihydro-6-oxo-1(4H)-pyridazinyl]-1-[[4-(4-pyridinyl)-1-piperazinyl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 666750-85-2 CAPLUS
CN Piperidine, 4-[3-(3,4-dimethoxyphenyl)-5,6-dihydro-6-oxo-1(4H)-pyridazinyl]-1-[[4-(2-methoxyphenyl)-1-piperazinyl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

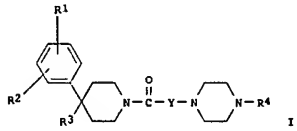
L12 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991507 CAPLUS
DOCUMENT NUMBER: 140:42206
TITLE: Preparation of piperazinylacylpiperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Bono, Francoise; Bosch, Michaeel; Dos Santos, Victor; Herbert, Jean Marc; Nisato, Dino; Tonnerre, Bernard; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:



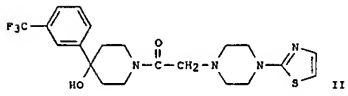


| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003104226 | A1 | 20031218 | WO 2003-FR1686 | 20030605 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2003255645 | A1 | 20031222 | AU 2003-255645 | 20030605 |
| EP 1513836 | A1 | 20050316 | EP 2003-757109 | 20030605 |
| EP 1513836 | B1 | 20060503 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| CN 1675203 | A | 20050928 | CN 2003-818808 | 20030605 |
| JP 2005533051 | T | 20051104 | JP 2004-511296 | 20030605 |
| AT 325122 | T | 20060615 | AT 2003-757109 | 20030605 |
| AT 336491 | T | 20060915 | AT 2003-757108 | 20030605 |
| PT 1513836 | T | 20060929 | PT 2003-757109 | 20030605 |
| ES 2264001 | T3 | 20061216 | ES 2003-3757109 | 20030605 |
| ZA 2004009823 | A | 20060726 | ZA 2004-9823 | 20041203 |
| US 2006167007 | A1 | 20060727 | US 2004-516808 | 20041203 |
| PRIORITY APPLN. INFO.: | | | FR 2002-7001 A | 20020607 |
| | | | WO 2003-FR1686 W | 20030605 |

OTHER SOURCE(S): MARPAT 140:42206
GI



I



II

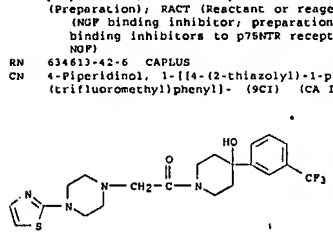




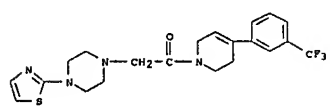
AB Title compds. I [wherein: Y = (CH2)n; n = 1 or 2; R1 = halo, CF3, alkyl, alkoxy, trifluoromethoxy; R2 = H, halo; R3 = H, OR5, CH2OR5, NH2 and derivs., NHCOR6 and derivs., NHCONH2 and derivs., CH2NR7R8, CH2NHCONH2 and derivs., alkoxycarbonyl, CONH2 and derivs.; or R3 forms a double bond between the carbon atom where it is bound to and the neighboring carbon atom of the piperidine cycle; R4 = 1,3-thiazol-2-yl; R5 = H, alkyl, alkylcarbonyl; R6 = alkyl, (CH2)mNH2 and derivs.; m = 1,2, or 3; R7, R8 = independently H, alkyl; R8 = (CH2)qOH, (CH2)qSMe; q = 2 or 3; or R7R8N = aziridine, azetidine, pyrrolidine, piperidine, morpholine; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve growth factor) for treating p75NTR related diseases (no data). For example, I (m.p. = 157-158°) was prepared by reacting 2-chloro-1-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) and 1-(1,3-thiazol-2-yl)piperazine dihydrochloride (preparation given) in the presence of KI/K2CO3/MeCN. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

IT 634613-42-6P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-43-7P 634613-45-9P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone Trihydrochloride
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

RN 634613-42-6 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



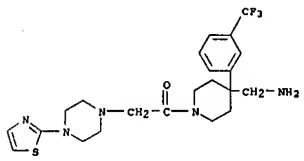
RN 634613-43-7 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)







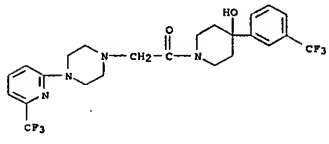
RN 634613-45-9 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

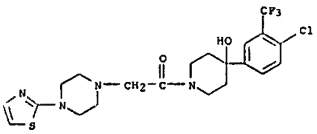
IT 634466-52-7P 634613-37-9P 634613-38-0P 634613-39-1P 634613-40-4P 634613-41-5P 634613-44-8P, 2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-3,6-dihydro-1-(2H)-pyridinyl]-1-ethanone dioxalate 634613-47-1P, 1-[4-[(Dimethylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone 634613-48-2P, 1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-ethanone
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

RN 634466-52-7 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[6-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, monohydrochloride (9CI) (CA INDEX NAME)

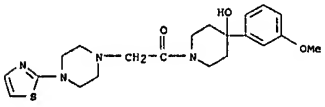


● HCl

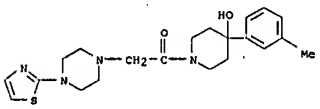
RN 634613-37-9 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-38-0 CAPLUS
CN 4-Piperidinol, 4-(3-methoxyphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



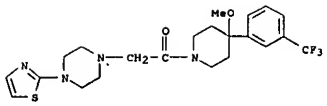
RN 634613-39-1 CAPLUS
CN 4-Piperidinol, 4-(3-methylphenyl)-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634613-40-4 CAPLUS
CN Piperidine, 4-methoxy-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

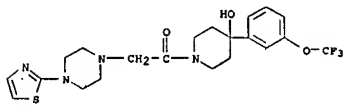






● HCl

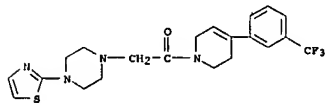
RN 634613-41-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



RN 634613-44-8 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 634613-43-7
CMF C21 H23 F3 N4 O S



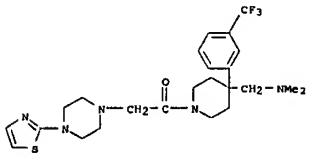
CM 2

CRN 144-62-7
CMF C2 H2 O4

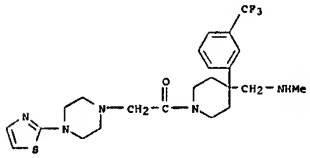




RN 634613-47-1 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

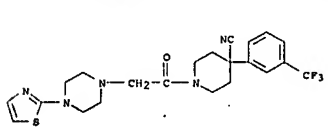


RN 634613-48-2 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



IT 634613-46-0P, 1-[2-[4-(1,3-Thiazol-2-yl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634613-49-3P, tert-Butylmethyl [1-[2-[4-(1,3-thiazol-2-yl)-1-piperazinyl]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methylcarbamate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of piperazinylacylpiperidines as NGF binding inhibitors to p75NTR receptor and of the apoptosis induced by NGF)

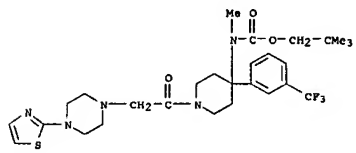
RN 634613-46-0 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)







RN 634613-49-3 CAPLUS
CN Carbamic acid, methyl[1-[[4-(2-thiazolyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991506 CAPLUS
DOCUMENT NUMBER: 140:27846
TITLE: Preparation of piperazinylacylpiperidines as inhibitors of NGF binding (nerve growth factor) to p75NTR (p75 neurotrophic) receptor for treating p75NTR related diseases
INVENTOR(S): Bono, Francoise; Bosch, Michael; Dos, Santos Victor; Herbert, Jean Marc; Nisato, Dino; Tonnerre, Bernard; Wagnon, Jean
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.; Dos Santos, Victor
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2003104225 | A1 | 20031218 | WO 2003-FR1685 | 20030605 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2487840 | A1 | 20031218 | CA 2003-2487840 | 20030605 |
| AU 2003255644 | A1 | 20031222 | AU 2003-255644 | 20030605 |
| EP 1513835 | A1 | 20050316 | EP 2003-757108 | 20030605 |
| EP 1513835 | B1 | 20060816 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |

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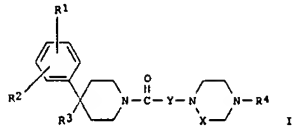
|---|---|---|---|---|---|
| BR 2003011828 | A | 20050329 | BR 2003-11828 | | 20030605 |
| US 2005176722 | A1 | 20050811 | US 2003-516704 | | 20030605 |
| CN 1675203 | A | 20050928 | CN 2003-818808 | | 20030605 |
| JP 2005534661 | T | 20051117 | JP 2004-511295 | | 20030605 |
| AT 325122 | T | 20060615 | AT 2003-757109 | | 20030605 |
| NZ 537044 | A | 20060831 | NZ 2003-537044 | | 20030605 |
| AT 336491 | T | 20060915 | AT 2003-757108 | | 20030605 |
| PT 1513836 | T | 20060929 | PT 2003-757109 | | 20030605 |
| ES 2264001 | T3 | 20061216 | ES 2003-3757109 | | 20030605 |
| ZA 2004009823 | A | 20060726 | ZA 2004-9823 | | 20041203 |
| NO 2004005331 | A | 20050307 | NO 2004-5331 | | 20041206 |
| IN 2004KN01862 | A | 20060407 | IN 2004-KN1862 | | 20041206 |
| MX 2004PA12341 | A | 20050930 | MX 2004-PA12341 | | 20041207 |
| PRIORITY APPLN. INFO.: | | | FR 2002-7001 | A | 20020607 |
| | | | WO 2003-FR1685 | W | 20030605 |

OTHER SOURCE(S): MARPAT 140:27846
GI



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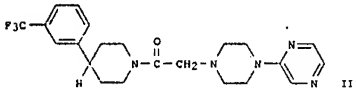


II

AB Title compds. I [wherein: Y = (CH2)n; n = 1 or 2; X = (CH2)p; p = 1 or 2; R1 = halo, CF3, alkyl, alkoxy, trifluoromethoxy; R2 = H, halo; R3 = H, OR5, CH2OR5, NH2 and derivs., NHCOR6 and derivs., NHCONH2 and derivs., CH2NR7R8, CH2NHCONH2 and derivs., alkoxycarbonyl, CONH2 and derivs.; or R3 forms a double bond between the carbon atom where it is bound to and the neighboring carbon atom of the piperidine cycle; R4 = (un)substituted pyridinyl, pyrazinyl, pyrimidinyl, pyridazinyl, 3(2H)-pyridazinon-5-yl, 3(2H)-pyridazinon-4-yl; R5 = H, alkyl, alkylcarbonyl; R6 = alkyl, (CH2)mNH2 and derivs.; m = 1,2, or 3; R7, R8 = independently H, alkyl; R8 = (CH2)qOH, (CH2)qSMe; q = 2 or 3; or R7R8N = aziridine, azetidine, pyrrolidine, piperidine, morpholine; and their salts, hydrates and solvates] were prepared as inhibitors of the binding of 125I NGF to p75NTR (p75 neurotrophic) receptor and of the apoptosis induced by NGF (nerve

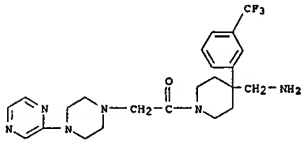




growth factor) for treating p75NTR related diseases (no data). For example, II•HCl was prepared by reacting 1-(2-pyrazinyl)piperazine (preparation given) with 2-chloro-1-[4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone (preparation given) in the presence of KI/K2CO3/MeCN, followed by acidulation with HCl. I inhibited the binding of 125I NGF to p75NTR receptor with IC50 in the range of 10-11 M to 10-6 M at the biochem. level. I inhibited the pro-apoptic effect induced by NGF, via growing cells expressing preferentially p75NTR, with IC50 in the range of 10-11 M to 10-6 M at the cellular level.

IT 634461-23-7P, 1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone
634461-63-5P 634461-69-1P 634462-72-9P
634462-91-2P 634463-08-4P 634463-19-7P
634463-26-6P 634463-39-1P 634463-49-3P
634463-83-5P 634464-53-2P 634464-60-1P
634464-66-7P 634525-03-4P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(NGF binding inhibitor; preparation of piperazinylacylpiperidines as inhibitors of the binding of NGF to p75NTR receptor and of the apoptosis induced by NGF)

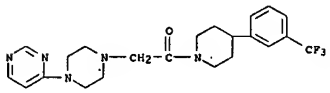
RN 634461-23-7 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634461-63-5 CAPLUS
CN Piperidine, 1-[[4-(4-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (2:5) (9CI) (CA INDEX NAME)

CM 1

CRN 634461-62-4
CMF C22 H26 F3 N5 O



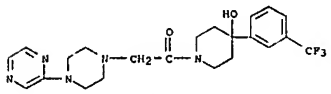




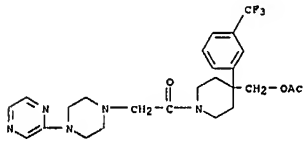
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634461-69-1 CAPLUS
CN 4-Piperidinol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634462-72-9 CAPLUS
CN 4-Piperidinemethanol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, acetate (ester), dihydrochloride (9CI) (CA INDEX NAME)

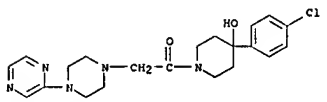


●2 HCl

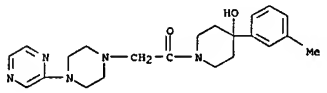
RN 634462-91-2 CAPLUS
CN 4-Piperidinol, 4-(4-chlorophenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



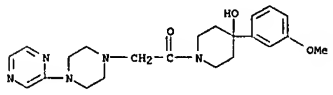




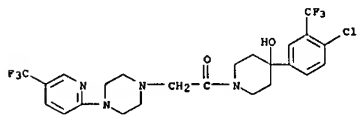
RN 634463-08-4 CAPLUS
CN 4-Piperidinol, 4-(3-methylphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



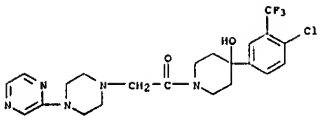
RN 634463-19-7 CAPLUS
CN 4-Piperidinol, 4-(3-methoxyphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



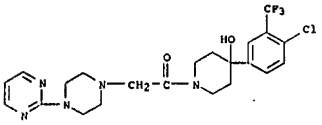
RN 634463-26-6 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634463-39-1 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



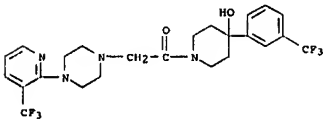
RN 634463-49-3 CAPLUS
CN 4-Piperidinol, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



RN 634463-83-5 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[3-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, ethanedioate (2:3) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 634463-82-4
CMF C24 H26 F6 N4 O2



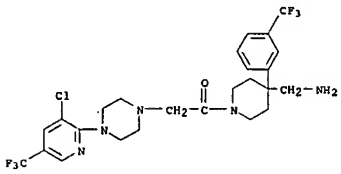
CM 2

CRN 144-62-7
CMF C2 H2 O4



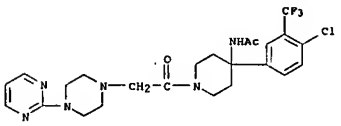


RN 634464-53-2 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

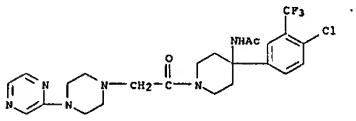


●2 HCl

RN 634464-60-1 CAPLUS
CN Acetamide, N-[4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 634464-66-7 CAPLUS
CN Acetamide, N-[4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)

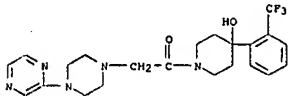


RN 634525-03-4 CAPLUS
CN 4-Piperidinol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[2-





(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

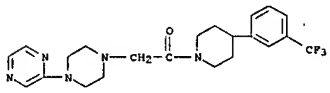


IT 634461-08-8P, 2-[4-(2-Pyrazinyl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-ethanone monohydrochloride
634461-12-4P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]-1-ethanone Dioxalate 634461-18-0P, 1-[4-Hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-3-[4-(2-(pyrazinyl))-1-piperazinyl]-1-propanone oxalate 634461-29-3P,
1-[4-(Aminomethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrimidinyl)-1-piperazinyl]-1-ethanone Trihydrochloride
634461-33-9P 634461-39-5P 634461-46-4P
634461-52-2P 634461-57-7P 634461-73-7P
634461-76-0P 634461-81-7P 634461-87-3P
634461-93-1P 634461-99-7P 634462-26-3P
634462-32-1P 634462-38-7P 634462-49-0P,
2-[4-(4-Pyrimidinyl)-1-piperazinyl]-1-[4-[3-(trifluoromethyl)phenyl]-3,6-dihydro-1(2H)-pyridinyl]-1-ethanone dioxalate 634462-55-8P
634462-61-6P 634462-68-3P 634462-79-6P,
1-[4-(Hydroxymethyl)-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634462-83-2P,
1-[4-[(Dimethylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634462-87-6P
634462-98-9P, 1-[4-(4-Chlorophenyl)-3,6-dihydro-1(2H)-pyridinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634463-03-9P,
1-[4-(Aminomethyl)-4-(4-chlorophenyl)-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone Trifluoroacetate 634463-13-1P
634463-23-3P 634463-33-5P 634463-44-8P
634463-55-1P 634463-72-2P 634463-77-7P
634463-88-0P 634463-93-7P 634463-97-1P
634464-03-2P 634464-08-7P, 1-[4-[(Methylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634464-15-6P, 1-[4-[[(Isopropylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634464-20-3P,
1-[4-[(N-Methylisopropylamino)methyl]-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone Trihydrochloride
634464-24-7P 634464-29-2P 634464-34-9P
634464-39-4P 634464-44-1P 634464-48-5P,
1-[4-(Aminomethyl)-4-(3-chlorophenyl)-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone 634464-72-5P, 1-[4-(Aminomethyl)-4-(3-methoxyphenyl)-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone Dioxalate 634466-52-7P 634470-18-1P
634470-24-9P 634470-30-7P 634470-42-1P
634525-08-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NGF binding inhibitor, preparation of piperazinylacylpiperidines as





inhibitors of the binding of NGF to p75NTR receptor and of the apoptosis induced by NGF)
RN 634461-08-8 CAPLUS
CN Piperidine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

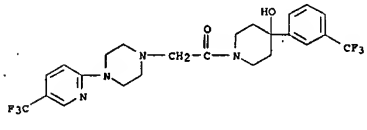


● HCl

RN 634461-12-4 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, ethanedioate (1:2) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 634461-11-3
CMF C24 H26 F6 N4 O2



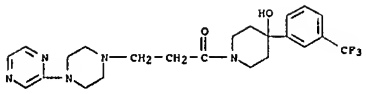
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634461-18-0 CAPLUS
CN 4-Piperidinol, 1-[1-oxo-3-(4-pyrazinyl-1-piperazinyl)propyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

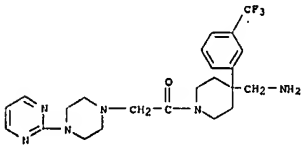
CRN 634461-17-9
CMF C23 H28 F3 N5 O2



CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634461-29-3 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

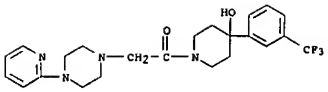


●3 HCl

RN 634461-33-9 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-pyridinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



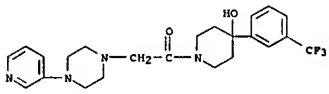




RN 634461-39-5 CAPLUS
CN 4-Piperidinol, 1-[[4-(3-pyridinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 634461-38-4
CMF C23 H27 F3 N4 O2



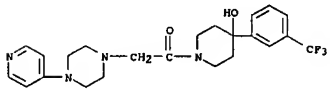
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634461-46-4 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-pyridinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:3) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 634461-45-3
CMF C23 H27 F3 N4 O2







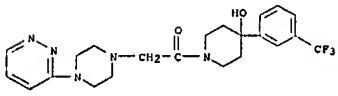
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634461-52-2 CAPLUS
CN 4-Piperidinol, 1-[[4-(3-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (salt) (9CI) (CA INDEX NAME)

CM 1

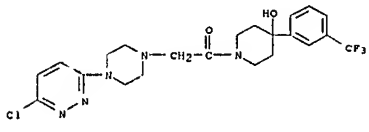
CRN 634461-51-1
CMF C22 H26 F3 N5 O2



CM 2

CRN 144-62-7
CMF C2 H2 O4

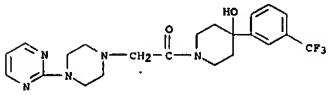
RN 634461-57-7 CAPLUS
CN 4-Piperidinol, 1-[[4-(6-chloro-3-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



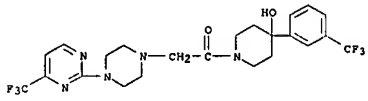




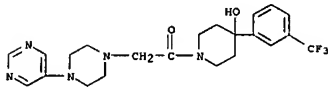
RN 634461-73-7 CAPLUS
CN 4-Piperidinol, 1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634461-76-0 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[4-(trifluoromethyl)-2-pyrimidinyl]-1-piperazinyl]acetyl]- (9CI) (CA INDEX NAME)



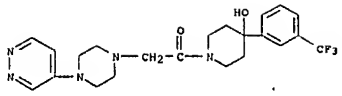
RN 634461-81-7 CAPLUS
CN 4-Piperidinol, 1-[[4-(5-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634461-87-3 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

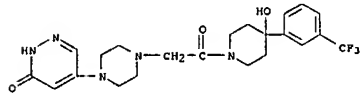
CRN 634461-86-2
CMF C22 H26 F3 N5 O2



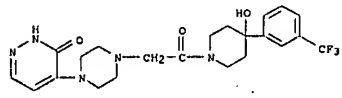
CM 2

CRN 76-05-1
CMF C2 H F3 O2

RN 634461-93-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(1,6-dihydro-6-oxo-4-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



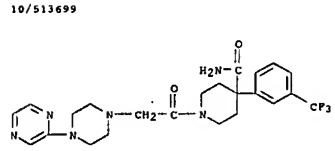
RN 634461-99-7 CAPLUS
CN 4-Piperidinol, 1-[[4-(2,3-dihydro-3-oxo-4-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634462-26-3 CAPLUS
CN Piperidine, 4-methoxy-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)





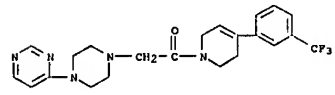


●3 HCl

RN 634462-49-0 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(4-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 634462-48-9
CMF C22 H24 F3 N5 O



CM 2

CRN 144-62-7
CMF C2 H2 O4

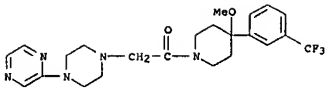
RN 634462-55-8 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 634462-54-7
CMF C22 H24 F3 N5 O





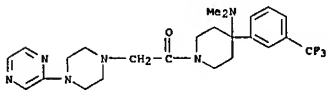


●3 HCl

RN 634462-32-1 CAPLUS
CN 4-Piperidinamine, N,N-dimethyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 634462-31-0
CMF C24 H31 F3 N6 O



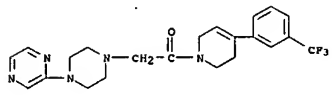
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634462-38-7 CAPLUS
CN 4-Piperidinecarboxamide, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)







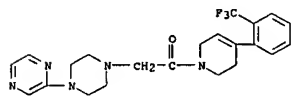
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634462-61-6 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[2-(trifluoromethyl)phenyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 634462-60-5
CMF C22 H24 F3 N5 O



CM 2

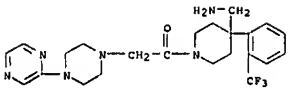
CRN 144-62-7
CMF C2 H2 O4

RN 634462-68-3 CAPLUS
CN 4-Piperidinemethanamine, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[2-(trifluoromethyl)phenyl]-, ethanedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 634462-67-2

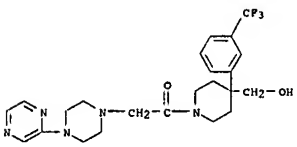
CMF C23 H29 F3 N6 O



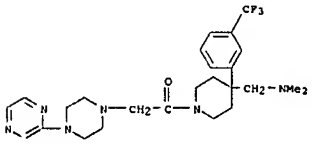
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634462-79-6 CAPLUS
CN 4-Piperidinemethanol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634462-83-2 CAPLUS
CN 4-Piperidinemethanamine, N,N-dimethyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

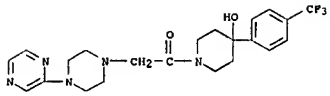


RN 634462-87-6 CAPLUS
CN 4-Piperidinol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[4-

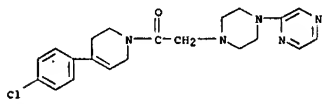




(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



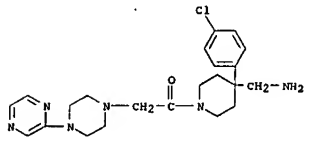
RN 634462-98-9 CAPLUS
CN Pyridine, 4-(4-chlorophenyl)-1,2,3,6-tetrahydro-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



RN 634463-03-9 CAPLUS
CN 4-Piperidinemethanamine, 4-(4-chlorophenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 634463-02-8
CMF C22 H29 Cl N6 O



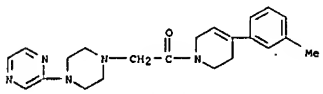
CM 2

CRN 76-05-1
CMF C2 H F3 O2





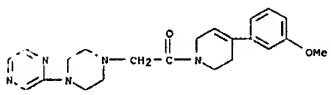
RN 634463-13-1 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-4-(3-methylphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



RN 634463-23-3 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-4-(3-methoxyphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 634463-22-2
CMF C22 H27 N5 O2



CM 2

CRN 144-62-7
CMF C2 H2 O4

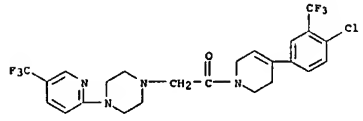
RN 634463-33-5 CAPLUS
CN Pyridine, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1,2,3,6-tetrahydro-1-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1





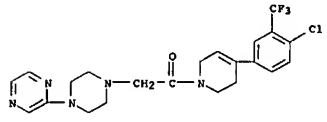
CRN 634463-32-4
CMF C24 H23 Cl F6 N4 O



CM 2

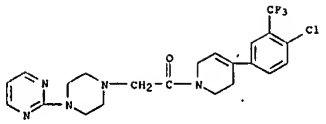
CRN 144-62-7
CMF C2 H2 O4

RN 634463-44-0 CAPLUS
CN Pyridine, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1,2,3,6-tetrahydro-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-, trihydrochloride (9CI) (CA INDEX NAME)



●3 HCl

RN 634463-55-1 CAPLUS
CN Pyridine, 4-[4-chloro-3-(trifluoromethyl)phenyl]-1,2,3,6-tetrahydro-1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]-, dihydrochloride (9CI) (CA INDEX NAME)

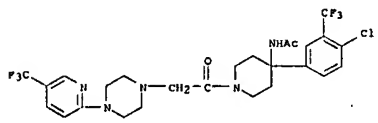


●2 HCl

RN 634463-72-2 CAPLUS
CN Acetamide, N-[4-[4-chloro-3-(trifluoromethyl)phenyl]-1-[[4-[5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-4-piperidinyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 634463-71-1
CMF C26 H28 Cl F6 N5 O2



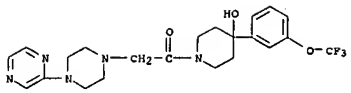
CM 2

CRN 144-62-7
CMF C2 H2 O4

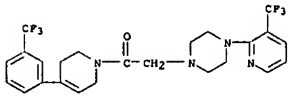
RN 634463-77-7 CAPLUS
CN 4-Piperidinol, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)





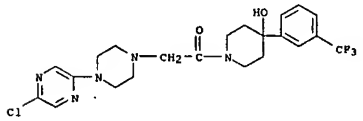


RN 634463-88-0 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-4-[3-(trifluoromethyl)phenyl]-1-[[4-[3-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, hydrochloride (2:3) (9CI) (CA INDEX NAME)

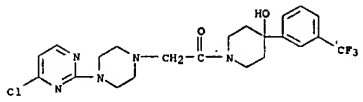


●3/2 HCl

RN 634463-93-7 CAPLUS
CN 4-Piperidinol, 1-[[4-(5-chloropyrazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



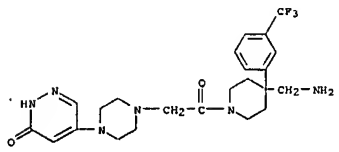
RN 634463-97-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(4-chloro-2-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)





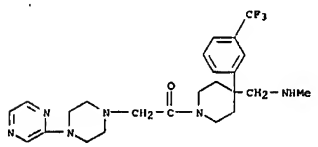


RN 634464-03-2 CAPLUS
CN 4-Piperidinemethanamine, 1-[[4-(1,6-dihydro-6-oxo-4-pyridazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

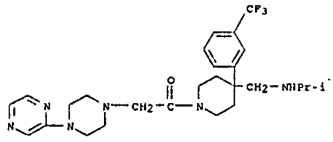


●3 HCl

RN 634464-08-7 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634464-15-6 CAPLUS
CN 4-Piperidinemethanamine, N-(1-methylethyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

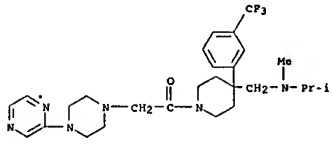


RN 634464-20-3 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-(1-methylethyl)-1-[(4-pyrazinyl-1-



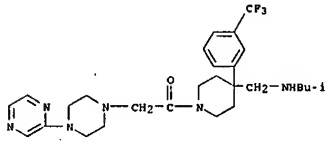


piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

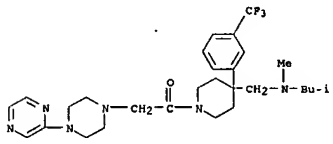


●3 HCl

RN 634464-24-7 CAPLUS
CN 4-Piperidinemethanamine, N-(2-methylpropyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

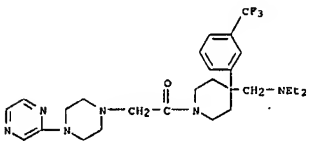


RN 634464-29-2 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-(2-methylpropyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)

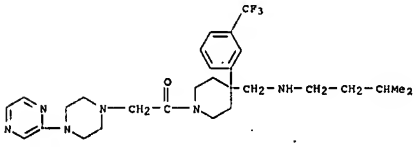


●3 HCl

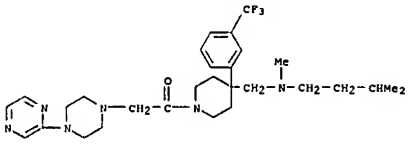
RN 634464-34-9 CAPLUS
CN 4-Piperidinemethanamine, N,N-diethyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634464-39-4 CAPLUS
CN 4-Piperidinemethanamine, N-(3-methylbutyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634464-44-1 CAPLUS
CN 4-Piperidinemethanamine, N-methyl-N-(3-methylbutyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-, trihydrochloride (9CI) (CA INDEX NAME)



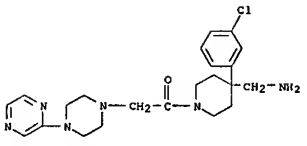
● 3 HCl

RN 634464-48-5 CAPLUS
CN 4-Piperidinemethanamine, 4-(3-chlorophenyl)-1-[(4-pyrazinyl-1-





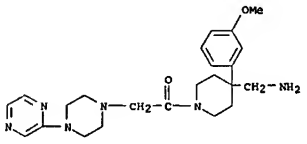
piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



RN 634464-72-5 CAPLUS
CN 4-Piperidinemethanamine, 4-(3-methoxyphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 634464-71-4
CMF C23 H32 N6 O2



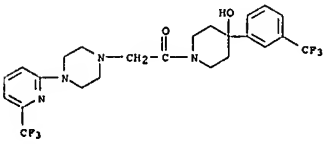
CM 2

CRN 144-62-7
CMF C2 H2 O4

RN 634466-52-7 CAPLUS
CN 4-Piperidinol, 4-[3-(trifluoromethyl)phenyl]-1-[[4-[6-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-, monohydrochloride (9CI) (CA INDEX NAME)

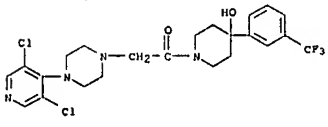




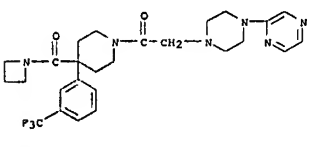


● HCl

RN 634470-18-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(3,5-dichloro-4-pyridinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



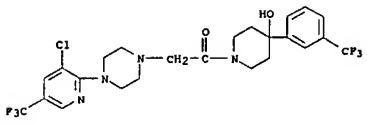
RN 634470-24-9 CAPLUS
CN Piperidine, 4-(1-azetidinylcarbonyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



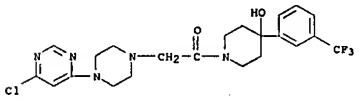
RN 634470-30-7 CAPLUS
CN 4-Piperidinol, 1-[[4-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



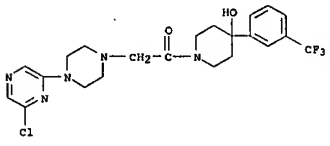




RN 634470-42-1 CAPLUS
CN 4-Piperidinol, 1-[[4-(6-chloro-4-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



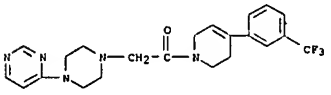
RN 634525-08-9 CAPLUS
CN 4-Piperidinol, 1-[[4-(6-chloropyrazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



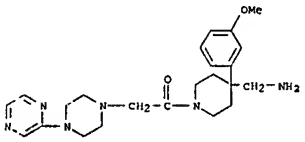
IT 634462-48-9P 634464-71-4P 634469-50-4P, 1-[2-[4-(2-Pyrazinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634469-57-1P, tert-Butyl [[1-[2-[4-(2-pyrazinyl)-1-piperazinyl]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]carbamate 634469-63-9P, 1-[2-[4-(2-Pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinecarbonitrile 634469-68-4P 634469-69-5P 634469-74-2P, 4-(4-Chlorophenyl)-1-[2-[4-(2-pyrazinyl)-1-piperazinyl]acetyl]-4-piperidinecarbonitrile 634469-86-6P, tert-Butylmethyl [[1-[2-[4-(2-pyrazinyl)-1-piperazinyl]]-1-oxoethyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]carbamate 634469-90-2P, 4-(3-Chlorophenyl)-1-[2-[4-(2-pyrazinyl)-1-piperazinyl]acetyl]-4-piperidinecarbonitrile 634469-97-9P, 4-(3-Methoxyphenyl)-1-[2-[4-(2-pyrazinyl)-1-piperazinyl]acetyl]-4-piperidinecarbonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinylacylpiperidines as inhibitors of the binding of NGF to p75NTR receptor and of the apoptosis induced by NGF)

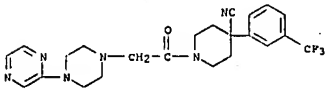
RN 634462-48-9 CAPLUS
CN Pyridine, 1,2,3,6-tetrahydro-1-[[4-(4-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634464-71-4 CAPLUS
CN 4-Piperidinemethanamine, 4-(3-methoxyphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



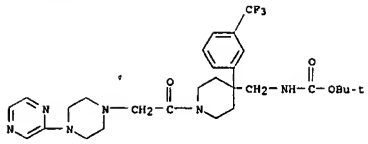
RN 634469-50-4 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



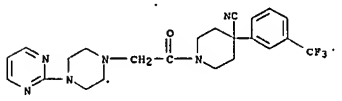
RN 634469-57-1 CAPLUS
CN Carbamic acid, [[1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



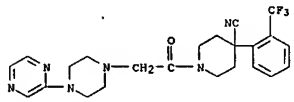




RN 634469-63-9 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[[4-(2-pyrimidinyl)-1-piperazinyl]acetyl]-4-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



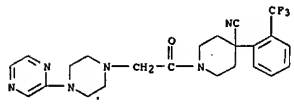
RN 634469-68-4 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 634469-69-5 CAPLUS
CN 4-Piperidinecarbonitrile, 1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[2-(trifluoromethyl)phenyl]-, ethanedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 634469-68-4
CMF C23 H25 F3 N6 O



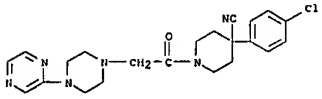




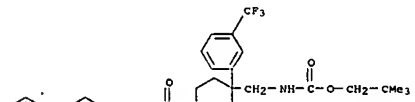
CM 2

CRN 144-62-7
CMF C2 H2 O4

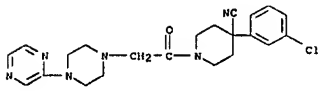
RN 634469-74-2 CAPLUS
CN 4-Piperidinecarbonitrile, 4-(4-chlorophenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



RN 634469-86-6 CAPLUS
CN Carbamic acid, [[1-[(4-pyrazinyl-1-piperazinyl)acetyl]-4-[3-(trifluoromethyl)phenyl]-4-piperidinyl]methyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)



RN 634469-90-2 CAPLUS
CN 4-Piperidinecarbonitrile, 4-(3-chlorophenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)

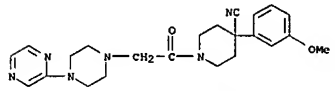


RN 634469-97-9 CAPLUS

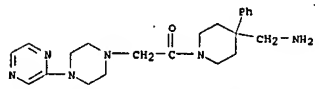




CN 4-Piperidinecarbonitrile, 4-(3-methoxyphenyl)-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



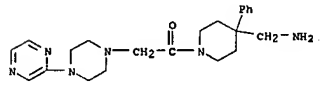
IT 634469-80-0P, 1-[4-(Aminomethyl)-4-phenyl-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone
RL: SPN (Synthetic preparation); PREP (Preparation)
(intermediate; preparation of piperazinylacylpiperidines as inhibitors of the binding of NGF to p75NTR receptor and of the apoptosis induced by NGF)
RN 634469-80-0 CAPLUS
CN 4-Piperidinemethanamine, 4-phenyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]- (9CI) (CA INDEX NAME)



IT 634469-81-1P, 1-[4-(Aminomethyl)-4-phenyl-1-piperidinyl]-2-[4-(2-pyrazinyl)-1-piperazinyl]-1-ethanone Trifluoroacetate
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of piperazinylacylpiperidines as inhibitors of the binding of NGF to p75NTR receptor and of the apoptosis induced by NGF)
RN 634469-81-1 CAPLUS
CN 4-Piperidinemethanamine, 4-phenyl-1-[(4-pyrazinyl-1-piperazinyl)acetyl]-, tris(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

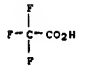
CRN 634469-80-0
CMF C22 H30 N6 O



CM 2

CRN 76-05-1

CMF C2 H F3 O2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:658095 CAPLUS
DOCUMENT NUMBER: 137:201331
TITLE: Preparation of heterocyclic substituted cycloalkanecarboxamides as dopamine D3 receptor ligands
INVENTOR(S): Hendrix, James A.; Hemmerle, Horst; Urmann, Matthias; Shutske, Gregory; Strupczewski, Joseph T.; Bordeau, Kenneth J.; Jurcak, John G.; Nieduzak, Thaddeus; Jackson, Sharon Anne; Angell, Paul; Fink, David M.; Sabuco, Jean-Francois; Chiang, Yulin; Collar, Nicola Lee, George E.
PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA; Carey, James P.;
SOURCE: PCT Int. Appl., 392 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002066446 | A1 | 20020829 | WO 2002-US4713 | 20020215 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2438264 | A1 | 20020829 | CA 2002-2438264 | 20020215 |
| AU 2002250107 | A1 | 20020904 | AU 2002-250107 | 20020215 |
| EP 1362039 | A1 | 20031119 | EP 2002-718999 | 20020215 |
| EP 1362039 | B1 | 20051221 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2004518740 | T | 20040624 | JP 2002-565962 | 20020215 |
| AT 313534 | T | 20060115 | AT 2002-718999 | 20020215 |
| EP 1632483 | A1 | 20060308 | EP 2005-18120 | 20020215 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| ES 2253526 | T3 | 20060601 | ES 2002-2718999 | 20020215 |
| MX 2003PA06943 | A | 20050429 | MX 2003-PA6943 | 20030804 |
| US 2004220173 | A1 | 20041104 | US 2004-819037 | 20040406 |





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|---|---|---|---|---|
| US 7186724 | B2 | 20070306 | | |
| US 2007161641 | A1 | 20070712 | US 2007-714047 | 20070305 |
| PRIORITY APPLN. INFO.: | | | US 2001-269672P | P 20010216 |
| | | | GB 2001-17577 | A 20010719 |
| | | | EP 2002-718999 | A3 20020215 |
| | | | WO 2002-US4713 | W 20020215 |
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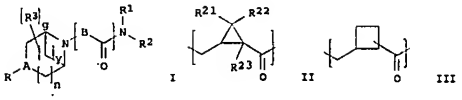
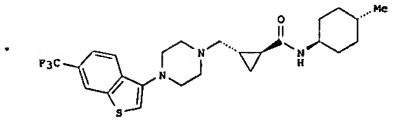
| | | | US 2004-819037 | A3 20040406 |

OTHER SOURCE(S): MARPAT 137:201331
GI



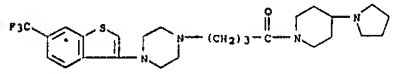


AB The title compds. [I; A = CH, N; n = 1-2; when n = 1, yr = 0 or 2; when n = 2, yr = 0; g = 1-2; R3 = H, alkyl, (CH2)wPh; w = 1-3; R = (un)substituted benzothienyl, pyrazinyl, pyridyl, etc.; BCO = (CR19C20)dCO, II, III, etc.; R19, R20 = H, OH, alkyl; R21-R23 = H, alkyl; d = 3-4; R1 = H, alkyl, etc.; R2 = 3-(imidazol-1-yl)propyl, trans-4-methylcyclohexyl, trans-4-ethylcyclohexyl, etc.] that display selective binding to dopamine D3 receptors, and therefore are useful in treating central nervous system disorders such as psychotic disorders, substance dependence, substance abuse, dyskinetic disorders (e.g., Parkinson s disease, parkinsonism, neuroleptic-induced tardive dyskinesia, Gilles de la Tourette syndrome and Huntington's disease), dementia, anxiety disorders, sleep disorders, circadian rhythm disorders and mood disorders, were prepared E.g., a multi-step synthesis of trans/trans-IV was described.. Biol. data for more than 1000 compds. I were given. The subject invention is also directed towards processes for the preparation of the compds. I as well as methods for making and using the compds. as imaging agents for dopamine D3 receptors.
IT 452902-57-7P 452902-79-3P 452903-57-0P
452903-67-2P 452909-63-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of heterocyclic substituted cycloalkanecarboxamides as dopamine D3 receptor ligands)
RN 452902-57-7 CAPLUS





CN Piperidine, 1-[1-oxo-4-[4-[6-(trifluoromethyl)benzo[b]thien-3-yl]-1-piperazinyl]butyl]-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



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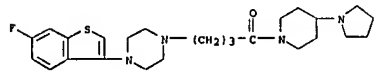
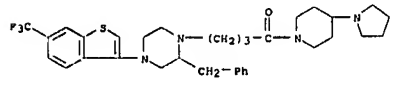
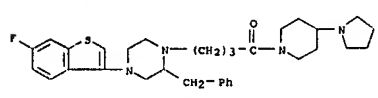


RN 452903-57-0 CAPLUS
CN Piperidine, 1-[1-oxo-4-[2-(phenylmethyl)-4-[6-(trifluoromethyl)benzo[b]thien-3-yl]-1-piperazinyl]butyl]-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



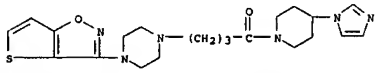
RN 452903-67-2 CAPLUS
CN Piperidine, 1-[4-(4-(6-fluorobenzo[b]thien-3-yl)-2-(phenylmethyl)-1-piperazinyl)-1-oxobutyl]-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 452909-63-6 CAPLUS
CN Piperidine, 4-(1H-imidazol-1-yl)-1-[1-oxo-4-(4-thieno[2,3-d]isoxazol-3-yl-1-piperazinyl)butyl]- (9CI) (CA INDEX NAME)







REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:197358 CAPLUS
DOCUMENT NUMBER: 128:257695
TITLE: Preparation of modified amino acids and their use as calcitonin gene-related peptide antagonists in pharmaceutical compositions
INVENTOR(S): Rudolf, Klaus; Eberlein, Wolfgang; Engel, Wolfhard; Pieper, Helmut; Doods, Henri; Hallermayer, Gerhard; Entzeroth, Michael; Wienen, Wolfgang
PATENT ASSIGNEE(S): Karl Thomae G.m.b.H., Germany
SOURCE: PCT Int. Appl., 461 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9811128 | A1 | 19980319 | WO 1997-EP4862 | 19970908 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| DE 19636623 | A1 | 19980312 | DE 1996-19636623 | 19960910 |
| DE 19720011 | A1 | 19981119 | DE 1997-19720011 | 19970514 |
| CA 2262818 | A1 | 19980319 | CA 1997-2262818 | 19970908 |
| AU 9741196 | A | 19980402 | AU 1997-41196 | 19970908 |
| AU 721035 | B2 | 20000622 | | |
| EP 927192 | A1 | 19990707 | EP 1997-938928 | 19970908 |
| EP 927192 | B1 | 20040512 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| BR 9712023 | A | 19990831 | BR 1997-12023 | 19970908 |
| JP 2000505100 | T | 20000425 | JP 1998-513227 | 19970908 |
| JP 3483893 | B2 | 20040106 | | |
| HU 9904501 | A2 | 20000428 | HU 1999-4501 | 19970908 |
| AT 266673 | T | 20040515 | AT 1997-938928 | 19970908 |
| EE 4375 | B1 | 20041015 | EE 1999-115 | 19970908 |
| PL 190180 | B1 | 20051130 | PL 1997-331989 | 19970908 |
| SK 285631 | B6 | 20070503 | SK 1999-297 | 19970908 |
| NO 9901130 | A | 19990505 | NO 1999-1130 | 19990309 |
| KR 2000044040 | A | 20000715 | KR 1999-702008 | 19990310 |
| BG 64214 | B1 | 20040531 | BG 1999-103250 | 19990315 |
| US 6344449 | B1 | 20020205 | US 1999-254281 | 19991012 |

| | | | | | |
|---|---|---|---|---|---|
| HK 1021192 | A1 | 20040430 | HK 1999-105722 | | 19991208 |
| US 2001036946 | A1 | 20011101 | US 2001-789391 | | 20010221 |
| US 2003069231 | A1 | 20030410 | US 2002-119875 | | 20020410 |
| US 2004214819 | A1 | 20041028 | US 2004-835495 | | 20040429 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19636623 | A | 19960910 |
| | | | DE 1997-19720011 | A | 19970514 |
| | | | WO 1997-EP4862 | W | 19970908 |
| | | | US 1999-254281 | A1 | 19991012 |
| | | | US 2001-789391 | A1 | 20010221 |
| | | | US 2002-119875 | B1 | 20020410 |

OTHER SOURCE(S): MARPAT 128:257695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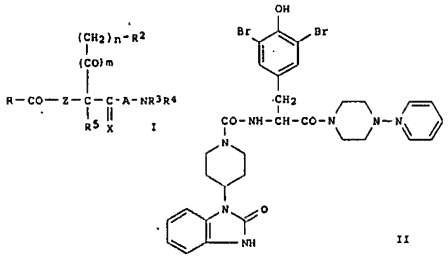


I



II


AB The invention concerns modified amino acids of general formula I [A = bond, CX; Z = CH2, NR1; R1 = H, alkyl, phenyl-alkyl; X = O, H,H; n = 1-2; m = 0-1; R = (substituted)alkyl; R2 = Ph, (substituted)(hetero)(bi)cycle; R3 = H, (substituted)alkyl, Ph, pyridinyl; R4 = H, (substituted)alkyl; R3R4= (hetero)cycle; R5 = H, alkyl, alkoxycarbonyl, PhCH2], pharmaceuticals containing these compds., their use and the method for their production, as well as their use for the production and purification of antibodies and as marked compds. in RIA and ELISA assays and as diagnostic or analytic auxiliary agents in neurotransmitter research. Thus, 3,5-dibromo-N2-[4-(1,3-dihydro-2(2H)-oxo-benzimidazol-1-yl)-1-piperidinyl]carbonyl-D-tyrosine was reacted with 1-(4-pyridinyl)-piperazine, to give II(22%). Title compds. show human calcitonin gene related peptide (CGRP) antagonist activity; in in-vitro binding studies with Sk-N-MC-cells, I had IC50 ≤10000 nM, and in the same system, had CGRP-antagonist activity at doses from 10-11 to 10-6 M.

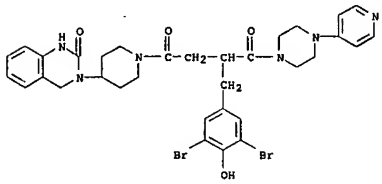

IT 205061-88-7P 205061-89-8P 205061-90-1P
205062-88-0P 205062-90-4P 205062-91-5P
205063-22-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);





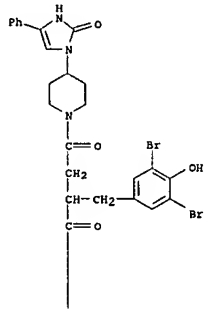
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acids and their use as calcitonin gene-related peptide antagonists in pharmaceutical compns.)

RN 205061-88-7 CAPLUS
CN Piperazine, 1-[2-[(3,5-dibromo-4-hydroxyphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 205061-89-8 CAPLUS
CN Piperazine, 1-[2-[(3,5-dibromo-4-hydroxyphenyl)methyl]-4-[4-(2,3-dihydro-2-oxo-4-phenyl-1H-imidazol-1-yl)-1-piperidinyl]-1,4-dioxobutyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)

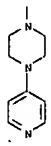
PAGE 1-A



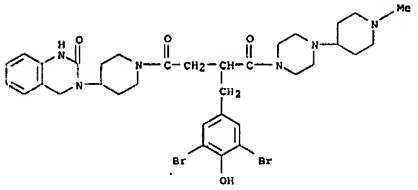




PAGE 2-A



RN 205061-90-1 CAPLUS
CN Piperazine, 1-[2-[(3,5-dibromo-4-hydroxyphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

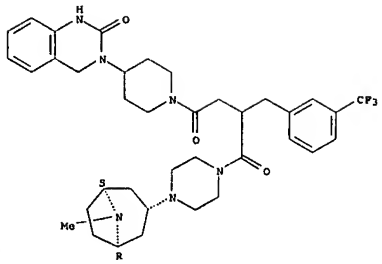


RN 205062-88-0 CAPLUS
CN Piperazine, 1-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxo-2-[[3-(trifluoromethyl)phenyl]methyl]butyl]-4-[(3-exo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]- (9CI) (CA INDEX NAME)

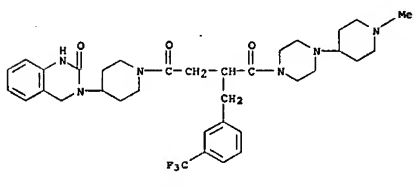
Relative stereochemistry.



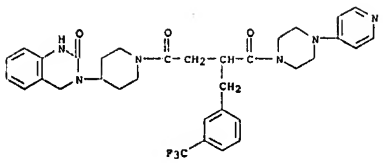




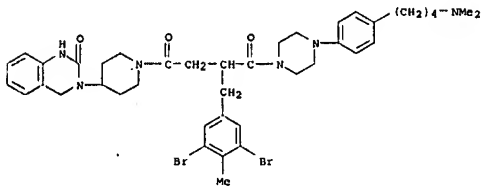
RN 205062-90-4 CAPLUS
CN Piperazine, 1-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxo-2-[[3-(trifluoromethyl)phenyl]methyl]butyl]-4-(1-methyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 205062-91-5 CAPLUS
CN Piperazine, 1-[4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxo-2-[[3-(trifluoromethyl)phenyl]methyl]butyl]-4-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 205063-22-5 CAPLUS
CN Piperazine, 1-[2-[(3,5-dibromo-4-methylphenyl)methyl]-4-[4-(1,4-dihydro-2-oxo-3(2H)-quinazolinyl)-1-piperidinyl]-1,4-dioxobutyl]-4-[4-[4-(dimethylamino)butyl]phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:594790 CAPLUS
DOCUMENT NUMBER: 111:194790
TITLE: Preparation of N-[3-(heterocyclylcarbonyl- and -sulfonyl)propyl]-N'-2-pyrimidinylpiperazines as antianxiety agents
INVENTOR(S): Welch, Willard Mckowan
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

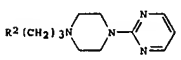
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 314363 | A2 | 19890503 | EP 1988-309725 | 19881017 |
| EP 314363 | A3 | 19900711 | | |
| EP 314363 | B1 | 19930407 | | |





| | | | | |
|---|---|---|---|---|
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| WO 8903831 | A1 | 19890505 | WO 1987-US2855 | 19871026 |
| W: FI, HU, NO, SU, US | | | | |
| HU 58724 | A2 | 19920330 | HU 1987-6036 | 19871026 |
| HU 206109 | B | 19920828 | | |
| AT 67919 | T | 19911015 | AT 1988-309725 | 19881017 |
| ES 2054823 | T3 | 19940816 | ES 1988-309725 | 19881017 |
| IL 88085 | A | 19930221 | IL 1988-88085 | 19881019 |
| JP 01157979 | A | 19890621 | JP 1988-268008 | 19881024 |
| JP 06043406 | B | 19940608 | | |
| CN 1042148 | A | 19900516 | CN 1988-107386 | 19881024 |
| CN 1022246 | B | 19930929 | | |
| ZA 8807925 | A | 19900627 | ZA 1988-7925 | 19881024 |
| DD 283388 | A5 | 19901010 | DD 1988-321032 | 19881024 |
| DD 298397 | A5 | 19920220 | DD 1988-337989 | 19881024 |
| CA 1314881 | C | 19930323 | CA 1988-581091 | 19881024 |
| AU 8824327 | A | 19890427 | AU 1988-24327 | 19881025 |
| AU 598161 | B2 | 19900614 | | |
| DK 8805914 | A | 19890427 | DK 1988-5914 | 19881025 |
| DK 171788 | B1 | 19970526 | | |
| PL 152117 | B1 | 19901130 | PL 1988-275476 | 19881025 |
| PL 153184 | B1 | 19910329 | PL 1988-279558 | 19881025 |
| CS 274441 | B2 | 19910411 | CS 1988-7080 | 19881026 |
| CS 274446 | B2 | 19910411 | CS 1989-1351 | 19890302 |
| NO 9001652 | A | 19900411 | NO 1990-1652 | 19900411 |
| US 4994455 | A | 19910219 | US 1990-477835 | 19900421 |
| RU 2029768 | C1 | 19950227 | RU 1990-4743942 | 19900425 |
| FI 94638 | B | 19950630 | FI 1990-2070 | 19900425 |
| FI 94638 | C | 19951010 | | |
| PRIORITY APPLN. INFO.: | | | WO 1987-US2855 | A 19871026 |
| | | | EP 1988-309725 | A 19881017 |
| | | | CS 1988-7080 | A3 19881026 |

OTHER SOURCE(S): CASREACT 111:194790; MARPAT 111:194790
GI



AB The title compds. (I; R2 = RCO, R1SO2; R = 14 specific N-attached heterocyclyl, e.g., pyrrolidino, piperidine, etc.; R1 = 7 specific N-attached heterocyclyl, e.g., 4,4-dimethylpiperidino, 4-(2-pyrimidinyl)piperazino, etc.) were prepared as antianxiety agents (no data). Br(CH2)3CO2Et was refluxed 4 h with H2O-separation with 1-(2-pyrimidinyl)piperazine in MeCOCH2CHMe2 containing Na2CO3 and KI to give 75% I (R2 = CO2Et) which was saponified and the product stirred 3 h at 0° and then overnight with 4,4-dimethylpiperidine in CH2Cl2 containing Et3N, 1-hydroxybenzotriazole, and DCC to give 47% I (R2 = 4,4-dimethylpiperidinocarbonyl).
IT 123319-56-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antianxiety agent)
RN 123319-56-2 CAPLUS
CN Piperidine, 4-acetyl-1-[1-oxo-4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-4-phenyl- (9CI) (CA INDEX NAME)